Effective Leadership for the Implementation of the Common Core State Standards: Principal Behaviors That Develop Professional Capital to Create Conditions for Positive Change

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EFFECTIVE LEADERSHIP FOR THE IMPLEMENTATION OF THE COMMON
CORE STATE STANDARDS: PRINCIPAL BEHAVIORS THAT DEVELOP
PROFESSIONAL CAPITAL TO CREATE CONDITIONS FOR POSITIVE CHANGE

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE SCHOOL OF EDUCATION
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF EDUCATION

PROGRAM IN ADMINISTRATION AND SUPERVISION

BY
EILEEN B. BRETT

CHICAGO, ILLINOIS
MAY 2018
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ABSTRACT

Identifying specific leadership behaviors of elementary school principals that create conditions for positive change is critical to implementing educational reform. The purpose of this research is to identify specific leadership behaviors of principals that have positively impacted the implementation of the Common Core State Standards through the development of professional capital.

The Common Core Standards represent a recent movement to create national standards, founded on the belief that schools have an obligation to ensure that all students are college and career ready (Conley, 2014a; McLaughlin & Overturf, 2012). Implementing the Common Core has challenged principals to develop leadership skills to support change demanded by the implementation of rigorous standards.

Principals and teachers were surveyed to identify the degree to which specific behaviors were demonstrated by elementary principals to support a culture of change during the implementation of the Common Core. Survey questions were rooted in the conceptual framework of Hargreaves and Fullan’s work on building professional capital as described in their book, Professional Capital, Transforming Teaching in Every School (2012).

Specific principal behaviors were analyzed in relationship to the development of professional capital, including human, social and decision making capital. Human capital refers to the quality of teachers based on their skills, knowledge and ability. Social
capital supports the relationships amongst teachers and decision making capital refers to decision making regarding all aspects of teaching and learning (Fullan, 2014; Hargreaves & Fullan, 2012).

This study demonstrates that participating principals display behaviors that support the development of human capital and decision making capital to a greater degree than social capital. Two important takeaways of this research include the competency of principals in developing social capital as a means of enhancing and extending both human and decision making capital, and the influence of specific principal behaviors in creating conditions for positive change.
CHAPTER I

INTRODUCTION

Introduction and Purpose

Educational standards do not represent something novel in the field of education. Over the past decade states have developed standards at all grade levels. Unfortunately, there has been disparity in expectations for students based on inconsistent standards between states (Phillips, 2010). The Common Core State Standards Initiative (CCSSI), sponsored by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO), represents a significant step in standards based educational reform. To date 44 states have voluntarily adopted the Common Core State Standards (CCSS) in both English Language Arts and mathematics. Minnesota has adopted only the English Language Arts standards. These states are taking part in this unprecedented initiative to put into practice a uniformed set of clear and rigorous educational standards in mathematics and English Language Arts, for students in kindergarten through 12th grade. The Common Core Standards build upon existing state standards and promote the mission established by the National Governors Association and the Council of Chief State School Officers.

The mission of the Common Core State Standards is:

To provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The
standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. (Common Core State Standards Initiative: Mission Statement, 2012, para. 1)

Adoption of the Common Core State Standards represents the initial step of the implementation process, which has already taken place across school districts throughout the country, without specified procedures or a stipulated curriculum. The development and implementation of curriculum to meet the goals proposed in the Common Core have been left to individual states and school districts with the ultimate responsibility resting squarely on the shoulders of school leaders. The transition to Common Core Standards will prove to be a challenge for most schools with newly defined, specific grade level standards that are rigorous, internationally benchmarked and contain higher levels of cognitive demand than previously implemented state standards (Common Core State Standards Initiative: Introduction, 2014; National Governors Association, 2014). As building level leaders are called upon to implement Common Core Standards with fidelity, the role of the principal will be redefined with increased expectations for shared leadership in an effort to build teacher capacity, efficacy and accountability. School leaders will need to create a system that allows for the effective implementation of the CCSS (Hall & Hord, 2011).

Developing a culture of leadership within school systems will be critical to the successful ongoing implementation of Common Core Standards. Studies of
organizational leadership have revealed the importance of developing leaders within the organization to promote a leadership culture over a leadership cult. Doing so shifts the power to those within the school organization as opposed to having the power and responsibility placed in the hands of one individual, such as the principal (Elmore, 2010). Building not only the human capital of teachers, which includes ability, knowledge and skills, but also the social capital, which focuses on the relationships among staff members, is viewed as an important predictor of school success (Adler & Kwon, 2002; Leana, 2011; Leana & Pil, 2006).

Understanding principal leadership behaviors that create conditions for positive change, build teacher capacity and foster a culture of high expectations is critical to any reform effort. The purpose of this research was to identify specific leadership behaviors and practices of principals that have positively impacted the implementation of the Common Core Standards by creating conditions that support change through the development of professional capital.

**Background**

Educational reform is by no means a concept unique to the 21st Century. The Common Core Standards represent a recent movement to create national standards stemming from previous reform efforts and legislation. These include educational reform, governmental reports and legislation such as The Elementary and Secondary Education Act of 1965 (ESEA), The Education for All Handicapped Children Act of 1974, A Nation at Risk (1983), Improving America’s Schools Act of 1984 and the No Child Left Behind Act of 2001 (NCLB).
The Elementary and Secondary Education Act, established in 1965, represented President Johnson’s war on poverty and was designed to close the achievement gap for students of color as well as those living in poverty (ESEA, 1965; Hewitt, 2011; Standerfer, 2006; Thomas & Brady, 2005). Granting billions of dollars in funding to schools throughout the country ESEA impacted educational reform and led to the development of legislation to improve the quality of education for all students. The Elementary and Secondary Education Act laid a foundation for future reform and educational policy in areas such as educational standards, educating students with disabilities and providing federal funding for immigrant children to learn English (ESEA, 1965; Jennings, 2015). Numerous acts were passed in the two decades following the implementation of ESEA which focused on improving education through increased equity, improved parent participation in schools, the establishment of national goals and creating safe schools (Bumphus, 2008).

The Education for All Handicapped Children Act (PL-94-142) further addressed inequities in the educational system, specifically addressing the rights of students with disabilities. In November of 1975, Congress passed the Education for All Handicapped Children Act, which required that all students regardless of ability receive a free and appropriate education in the least restrictive environment (Schuster, 1985; Zettel & Ballard, 1982). Prior to the passage of this law students with disabilities often received an inadequate education in segregated school settings (Keogh, 2007; Schuster, 1985).

The Education for All Handicapped Children Act provided children with disabilities with a free and appropriate education as well as a number of other safeguards.
These included safeguards such as the right to non-discriminatory testing and evaluation, due process, and a parent's right to access to his or her child's records as well as a right to an individually designed education plan (Education for All Handicapped Children Act, 1975; Weintraub, Abeson & Zettel, 1977; Zettel, 1977).

In 1983 the U.S. Department of Education issued a report by the National Commission on Excellence in Education titled, *A Nation at Risk*. This report proclaimed, “the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people” (National Commission on Excellence in Education, 1983). According to the U.S. Department of Education, *A Nation at Risk*, highlighted a variety of challenges which included inadequate performance on international tests as compared to other industrialized nations, an illiteracy rate of 13% among 17 year-olds, and declining student achievement on standardized tests, SATs and college assessments, as well as a sharp increase in the need for remedial math courses at the college level (National Commission on Excellence in Education, 1983; U.S. Department of Education, 2008). This report drew attention to the dismal state of the American educational system and triggered the standards based reform movement; sparking local, state and federal reform efforts that have continued over the past three decades.

*A Nation at Risk* stressed that public schools in the United States lacked clear expectations and learning objectives and did not emphasize rigorous standards to maintain global economic competitiveness (Hamilton, Stecher & Yuan, 2008). Furthermore, *A Nation at Risk* (National Commission on Excellence in Education, 1983)
highlighted the need for more rigorous and measurable educational standards at both the K-12 and college levels, resulting in standards based educational systems with increased systems of accountability. Recommendations for change were suggested in five areas including: curriculum content, standards and expectations of students, time devoted to education, teacher quality and educational leadership.

Following the publication of *A Nation at Risk* many states enacted reform efforts to improve student learning by raising expectations and enacting policies to allow students to meet these rigorous expectations (Achieve, 2000). Illinois represents one state that enacted legislation to improve the educational system for all students. In 1985, the Illinois Legislature passed a transformative piece of legislation, the Educational Reform Act of 1985 (P.L. 84-126), which included 169 separate reforms designed to strengthen the public school system across the state (Achieve, 2000; Illinois State Board of Education, 1986; Sevener, 1991).

State goals in six core subjects resulted from the Education Reform Act of 1985, as did a mandated statewide assessment program, the Illinois Goals Assessment Program (IGAP), which was designed to measure student progress against the established learning goals (Achieve, 2000; Bettis, 2004; Illinois State Board of Education, 1999). Public Act 84-126 went into effect in August 1985 amending the Illinois School Code to include a definition of schooling for the first time in the history of the state. In addition, requirements were put into place for the State Board of Education to establish goals and assessments in the following six areas: language arts, mathematics, social science, biological and physical science, fine arts and physical development and health (Illinois
The State Board of Education, 1986; Sanders, 1986). The State of Illinois shifted its focus from what schools were doing to what students were learning, with increased accountability in the form of state assessments (IGAP) as well as increased transparency through the first publicly shared state report card.

Following his election in 1989, George H.W. Bush held an educational summit in conjunction with the National Governors Association (NGA). The National Education Goals Panel (NEGP) was created during the summit to assist government officials in developing national standards as well as assessments to better understand how students were performing in school (Hamilton et al., 2008). Although never signed into law, in 1991 President Bush shared a national strategy called America 2000. America 2000 was initially developed during the 1989 educational summit and addressed the six national goals adopted by the NGA and President Bush in 1990 (Goertz, 2007; Hamilton et al., 2008; Standerfer, 2006).

The federal government was also engaged in the standards movement during the Clinton administration with the reauthorization of ESEA in 1994, as the Improving America’s Schools Act (IASA) (Goertz, 2007; Hamilton et al., 2008; IASA, 1994; Standerfer, 2006). IASA focused on four key elements of educational improvement including: (1) high standards for all students; (2) teacher training; (3) accountability, and (4) partnerships between families, the community and the schools (IASA, 1994). In addition, IASA created the National Education Standards and Improvement Council (NESIC), which promoted federal mandates in an act known as Goals 2000: Educate America Act (Stedman, 1994). Goals 2000 created eight national goals to be achieved by
the year 2000 including the six goals previously established by The National Governors’ Association. Goals 2000 supported states that voluntarily created programs to promote these national goals (IASA, 1994; Webb, 2006). Furthermore, Goals 2000 mandated that schools design challenging standards in reading and mathematics with quality assessments to measure those standards. (Goertz, 2007; IASA, 1994; Standerfer, 2006). Despite an increased focus on standards-based education, common educational standards across the states were not a result of early educational reform efforts which followed the publication of *A Nation at Risk* (Wallander, 2014).

In an effort to improve student achievement for all elementary and secondary age students, President George W. Bush signed into law the No Child Left Behind Act of 2001 (NCLB, Public Law 107-110) in January of 2002. Initially met with optimism, this act reauthorized the Elementary and Secondary Education Act of 1965 with additional key goals such as improved parent involvement as well as increased accountability, school choice and a greater focus on reading (Darling-Hammond, 2007; U.S. Department of Education, 2002). The passage of NCLB resulted in accountability in the form of mandated annual testing for all students in third through eighth grades. Schools were required to demonstrate that all students, including all subgroups, made annual yearly progress and demonstrated proficiency in the areas of math and reading by 2014. Subgroups represented classifications of students that required reporting, related to academic achievement, for increased accountability. These groups included minority students, students with disabilities, English Language Learners, low-income students as well as students of specific racial and ethnic groups (Darling-Hammond, 2007; U.S
Department of Education, 2001). These requirements were enacted without a well-defined, well-articulated implementation plan; nor were appropriate levels of funding provided to assist states in achieving high levels of success (Darling-Hammond, 2007). As a result, many schools with high achieving students were regarded as failing in regards to specific sub-group populations (Darling-Hammond, 2007). Other states over-emphasized testing often sacrificing student learning (Guilfoyle, 2006) and in some cases states actually lowered their attainment levels, creating a façade of higher levels of student achievement (Karp, 2003). Although highly regarded in its attempt to ensure that all children would receive an equitable education with high standards in an era of increased accountability, NCLB has been met with mixed results and has not proven to be successful in abating inequities in the educational system that continues to exist (Hamilton et al., 2008; Rothstein & Jacobsen, 2006).

In December 2015, President Barack Obama signed the Every Student Succeeds Act (ESSA), replacing NCLB as the nation’s major law governing public schools (Krebs, 2016). With the implementation of the ESSA states will be afforded greater flexibility when developing systems for school improvement, moving beyond requirements set out in NCLB (Stockdale, 2016). ESSA includes provisions that help to ensure success for students and schools including: (1) Supporting equity of education for all students, (2) Requiring that students are taught to high academic standards aimed at college and career readiness, (3) Ensuring that information is shared with educators, families, students, and communities through annual assessments that measure student progress towards meeting high standards, (4) Helping to support and grow innovations developed by local leaders
and educators, (5) providing access to high-quality preschool programs, and (6)
Maintaining expectations for accountability and action to support change in the lowest-
performing schools, schools with groups of students not making progress, and in schools

Thirty-two years after *A Nation at Risk* highlighted the problem of failing schools
across the country, significant issues continue to focus on poor student achievement
(Reeves, 2011; Toch, 2012). According to Linda Darling-Hammond (2004), standards-
based reform efforts did not lead to the intended outcomes of improved student learning
and in fact limited access to education for low achieving students.

**Common Core State Standards**

Standards-based reform, No Child Left Behind, and most recently the
development of the Common Core State Standards focus on increasing student learning
outcomes in an effort to prepare students for college and careers. The Common Core is
designed to support students in successfully competing in a more globalized economy
(Alliance for Excellent Education, 2014). The National Governors Association (NGA)
and the Council of Chief State School Officers (CCSSO) coordinated a state-led effort
resulting in the development of the Common Core State Standards which provide clear
goals about what K-12 students must learn to be successful in college and career
(Common Core State Standards Initiative: Mission Statement, 2012; Eilers & D’Amico,
2012; McLaughlin & Overturf, 2012). Although initially adopted by 46 states and the
District of Columbia, as of December 2015, Common Core Standards are being
implemented in full within 44 states and the District of Columbia, following the
withdrawal of Indiana, Oklahoma and South Carolina. As of December 2015, Minnesota continues to implement only the Common Core English Language Arts standards.

In 2010 The American Institutes of Research documented significant gaps in state standards regarding expectations for teaching and learning (Phillips, 2010). There has been a lack of agreement on what students should know and be able to do between states resulting in varied state standards and expectations often driven by factors such as the size of a school, location, and the racial/ethnic composition of a given school (Cogan, Schmidt, & Wiley, 2001).

A significant difference of the Common Core State Standards, as compared to previously implemented and disparate state standards, is that students will not be placed at a disadvantage based on where they live or go to school (Common Core State Standards: What Parents Should Know, 2015; McDonnell & Weatherford, 2013; Rothman, 2011). Therefore, regardless of the variances often associated with a child’s zip code, the Common Core Standards seeks to create one set of demanding standards for all students across the country (Kornhaber, Griffith & Tyler, 2013). According to the Common Core State Standards Initiative: About the Standards (2015):

As states work to implement the Common Core Standards it is important to understand that “The standards were created to ensure that all students graduate from high school with the skills and knowledge necessary to succeed in college, career, and life, regardless of where they live. (para. 2)

The Common Core State Standards build upon existing state standards, are clear and consistent, include rigorous content, are internationally benchmarked and are evidence...
based (Common Core State Standards Initiative: Introduction, 2014; Conley, 2014a; McLaughlin & Overturf, 2012). Common Core State Standards are designed to improve the overall quality of education for all students across the country, and unlike previous initiatives will serve to level the playing field regarding access to rigorous content and consistent and high expectations for learning (Schmidt & Burroughs, 2012). At the heart of the Common Core State Standards is a philosophical belief that must ensure that all students are college and career ready (Conley; 2014a; McLaughlin & Overturf, 2012; Wiener, 2013). The CCSS Initiative outlines specific characteristics of college and career ready students. These include:

- Demonstrate independence by becoming a self-directed learner as displayed by the independent use of all available resources.
- Build strong content knowledge by developing a broad base of knowledge across a variety subject matter.
- Respond to the varying demands of audience, task, purpose, and discipline.
- Comprehend as well as critique by becoming an open-minded reader and listener.
- Value evidence as demonstrated through the use of evidence to defend their interpretation of text both orally and in writing.
- Use technology and digital media strategically and capably by selecting from a variety of technological tools to support their communication goal.
• Understand other perspectives and cultures based on reading and listening to effectively communicate with others from various backgrounds and cultures.

(Common Core State Standards Initiative: ELA-Literacy, 2014, para. 4)

The 44 states that have moved forward with the Common Core implementation in mathematics and/or English Language Arts, have now shifted their emphasis from adoption to the ongoing implementation of Common Core State Standards, including ongoing curriculum development and assessment. This has placed new responsibilities on building level administrators as they continue to lead their teachers through the implementation process. Expectations for student achievement and teacher performance are higher now than they have ever been (Provost, Boscardin & Wells, 2012). Increased accountability has emerged from legislation such as NCLB and the development of CCSS and has had a direct impact on the professional standards for school administrators (Boscardin, McCarthy & Delgado, 2009).

These revised standards will challenge principals and other building leaders to redefine their roles and leadership styles to support changes necessary to lead their schools in the implementation and ongoing monitoring of student achievement and growth related to the application of Common Core State Standards. Research demonstrates that there is a significant relationship between the influences of the principal and student learning, second only to the quality of the classroom teacher (Harvey, Holland & Cummins, 2013; Leithwood, Harris & Hopkins, 2008; Mitgang, 2012). DuFour and Marzano (2011) state that “research now supports what practitioners have known for decades: powerful school leadership on the part of the principal has a
positive effect on student achievement” (p. 48). Elementary school principals must have the ability to build teacher capacity to implement the Common Core (Achieve, 2012).

The Principal as Instructional Leader

The role of the school leader has received considerable attention as it relates to the implementation of educational reform and the impact that leadership has on student achievement (Achieve, 2012; Fullan, 2002; Marzano, Waters & McNulty, 2005; Robinson, Lloyd & Rowe, 2008; Waters, Marzano & McNulty, 2004). Leadership remains a critical school-level factor associated with student learning (Hornung, Klasick, Loeb, 2010; Jacques, Clifford & Hornung, 2012). In a review of the literature, Leithwood, Menzies and Jantzi (1994) determined that the role of the principal has changed significantly over the past three decades. As the role of the principal has changed, the concept of instructional leadership developed as a way to conceptualize the roles and responsibilities of principals in relationship to classroom instruction (Deal & Peterson, 1999). Although no single definition of instructional leadership emerged in their review of the literature, Nettles and Herrington (2007) found the following factors to be critical elements of effective leadership:

- Creating a safe and orderly environment
- Development of a clear mission and vision
- Involvement of all stakeholders
- Monitoring progress
- Maintaining a school-wide focus on instruction
- Maintaining high expectations for student performance
• Providing opportunities for professional development

According to Robinson et al. (2008) research has demonstrated a relationship between leadership and student outcomes, which result when school leaders create conditions that allow teachers to have a direct impact on students. Based on their review of the literature pertaining to effective school leadership, Leithwood and Jantzi (2008) identified seven strong claims regarding successful school leadership including the claim that, “School leaders improve teaching and learning indirectly and most powerfully through their influence on staff motivation, commitment and working conditions” (p. 27). This claim demonstrates the importance of leaders creating conditions for positive change that support teaching and learning.

The political landscape has also altered the roles and responsibilities of school leaders with increased and new expectations tied to teacher evaluation. In an effort to stimulate the economy, encourage job creation and invest in critical sectors, including education, President Obama signed the American Recovery and Reinvestment Act of 2009 (ARRA) into law on February 17, 2009 (American Recovery and Reinvestment Act, 2009; Crowe, 2011). The Obama administration’s Race to the Top initiative was a product of the ARRA and provided incentive grants to winning states emphasizing among other factors, increased accountability through the development of teacher evaluation systems that, “establish clear approaches to measuring student growth and measure it for each individual student” (American Recovery and Reinvestment Act, 2009, p. 9).
Widespread agreement that teacher evaluation systems have had little impact on improving teacher effectiveness (Danielson, 2007; Hornung et al., 2010; Weisberg, Sexton, Mulhern & Keeling, 2009) ignited swift changes in teacher evaluation systems across the country (Cosner, Kimball, Barkowski, Carl, & Jones, 2015; McGuinn, 2012). *Race to the Top* spurred changes in teacher evaluation even beyond those states receiving incentive grants with a focus on value added models of accountability (Collins & Amrein-Beardsley, 2014). Value added models of evaluation have moved beyond traditional evaluations that relied heavily on observations of teacher practice by supervisors. According to Darling-Hammond, Amrein-Beardsley, Haertel and Rothstein (2012), value added models (VAMs) have the potential to provide important feedback regarding factors, which affect student achievement but often fail to measure factors that influence achievement beyond the classroom teacher. These include:

- School factors such as class size, curriculum materials, instructional time, and resources for learning
- Home and community supports and challenges
- Individual student needs and abilities, health and attendance
- Peer culture and achievement
- Prior teachers and schooling as well as other current teachers
- Differential summer learning loss
- The specific tests used. (Darling-Hammond et al., 2012, p. 8)
Fueled by federal incentives such as *Race to the Top* numerous states have added growth and value added models to their teacher evaluation practices. The Performance Evaluation Reform Act (PERA) was passed by the Illinois General Assembly and signed by Governor Quinn on January 15, 2010. The Performance Evaluation Reform Act (PERA) and Illinois Pension Code Senate Bill 7, states that in addition to other requirements PERA specifically requires that:

Upon the implementation date applicable to a school district or other covered entity, performance evaluations of the principals/assistant principals and teachers of that school district or other covered entity must include data and indicators of student growth as a “significant factor.” (Senate Bill 7, 2015, Introduction, para. 2)

Upon full implementation of PERA student growth will account for a minimum of 30 percent of a teacher’s final rating, (Performance Evaluation Reform Act, 2010).

Student growth will be measured using a variety of assessment types to be determined by each districts’ joint committee which shall include an equal representation of teachers and administrators.

Reform efforts and federal initiatives such as *Race to the Top* and No Child Left Behind have led to increased accountability for both principals and teachers and have given momentum to the task of redefining the roles and responsibilities of building level administrators. School leaders must facilitate systematic change to create new ways of conducting schooling throughout the K-12 systems (Reed, 2013). Principals will need to develop a comprehensive understanding of the school-wide changes necessary to
implement more rigorous standards and how to lead those changes to create a successful learning environment (Anderson, Harrison, & Lewis, 2012). Such change does not happen by itself in schools. The changing role of school administrators has been so dynamic that in 2008 The National Policy Board for Educational Administration adopted the revised Educational Leadership Policy Standards (Council of Chief State School Officers, 2008), setting new standards for educational leaders.

Examining the practices of school leaders within states that have led the way in the implementation of the Common Core Standards and have already transformed from state standards to Common Core Standards will allow others to follow their lead. In a 2014 report prepared by the Southern Regional Education Board titled, *State Implementation of Common Core Standards*, the implementation of Common Core Standards across 15 states were reviewed. This report identified Kentucky as a leading and strong state in the implementation process based on the following five topic areas:

- Timeline and Approach to Standards and Assessments
- Common-Core Aligned Teaching Resources
- Professional Development
- Evaluation of Teachers and Leaders
- Accountability. (Southern Regional Education Board, 2014)

Kentucky was the first state to adopt and implement Common Core standards with full implementation beginning during the 2011-2012 school year. Kentucky has adopted a common assessment (the Kentucky Performance Rating for Educational Progress) and has put into practice plans for teacher professional development pertaining
to implementation of Common Core Standards. The Kentucky Department of Education has also developed curriculum guides and materials as well as a teacher evaluation plan to support implementation efforts.

**Purpose and the Conceptual Framework**

This research study examined the leadership practices of principals from elementary schools in Kentucky since the adoption of Common Core Standards in 2011. The purpose of this research was to identify specific leadership behaviors and practices employed by principals that have positively impacted the implementation of the Common Core Standards by creating conditions that support change through the development of professional capital. Data was collected using surveys completed by principals and teachers from elementary schools in the state of Kentucky. This research was rooted in the conceptual framework of Hargreaves and Fullan’s (2012) work on building professional capital as described in their book, *Professional capital: Transforming teaching in every school*. Specific behaviors of principals were reviewed in relationship to the development of each aspect of professional capital including human, social and decision making capital. Human capital refers to the quality of teachers based on their skills, knowledge and ability, and is enhanced by and closely connected to social capital, referring to the quality and quantity of the relationships among teachers. To support human capital principals must hire high quality teachers and develop their skills through ongoing professional development and feedback in a collaborative school environment, fostering social capital (Fullan 2014; Hargreaves & Fullan, 2012; Leana, 2011). Social capital increases each individual teacher’s knowledge and skills by providing greater
access to the human capital (skills and knowledge) of other staff members (Fullan, 2014). The final component, decision making capital, refers to the decision making regarding all aspects of student learning, of both individuals and groups within the school setting (Fullan, 2014; Hargreaves & Fullan, 2012).

**Proposed Research Questions**

This research study examined the behaviors and leadership styles of elementary school principals that cultivated an environment of change, by building teacher capacity in order to successfully implement the Common Core State Standards. Areas for consideration included the specific strategies leaders put into practice to build teacher capacity and the documentation of leadership behaviors that promoted or inhibited a culture of change and reform. Specific behaviors related to the development of human, social and decision making capital, collectively known as professional capital, were examined. In order to identify the precise leadership behaviors associated with the creation of positive conditions for change and the successful implementation of Common Core Standards the following questions were researched:

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

Research strongly supports the relationship between a positive school climate and school improvement (Day, Harris, Hadfield, Tolley, & Beresford, 2000; Freiberg, 1998; Marzano et al., 2005). Climate, according to Cohen, McCabe, Michelli and Pickeral (2009), refers to “the quality and character of school life and is based on patterns of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (p. 182). These characteristics directly align with the development of both human capital, which focuses on the development knowledge and skills of individuals and groups of teachers, and social capital which supports the interactions of the group through quality interactions and social relationships (Hargreaves & Fullan, 2012). The leadership behavior of principals has a direct impact on the climate and effectiveness of schools.
(Christensen, Marx & Stevenson, 2006; Cotton, 2003; Marzano et al., 2005; Norton, 2003) and is critical not only to the success of students but also to the development of teachers. Leadership that supports social capital through the development and collaboration of adults enhances the success of all in the school environment (Hargreaves & Fullan, 2012; Hord, 2008). School climate has been identified as a direct outcome of a principal’s work much like improved instructional quality or student growth (Clifford, Menon, Gangi, Condon, & Hornung, 2012). Understanding the behaviors building level leaders have demonstrated that have created conditions for positive change will have an indirect or direct impact on the climate of a school.

Understanding the impact professional capital has on building teacher capacity will further allow principals to sharpen their leadership skills associated with creating conditions for positive change to support the implementation of Common Core Standards. These understandings will have practical application for the implementation of future educational reform efforts or initiatives.

Without question the leadership of school principals impacts the work of teachers and the achievement of students. Research has demonstrated the critical role principals play in the development of successful schools (Glanz, Shulman & Sullivan, 2007; Marzano et al., 2005). Leadership models that have received great attention include shared or distributed leadership, instructional leadership and transformational leadership. Distributed or shared leadership creates an environment of collaboration, similar to the development of social capital, and creates a larger pool of leaders within a school. Instructional leadership has a focus on leadership directly associated with teaching and
learning whereas transformational leadership serves nine functions within three broad areas related to mission, performance and culture (Leithwood, 1994). Marks and Printy (2003) examined the impact of integrating models of shared instructional leadership and transformational leadership on pedagogy and student achievement. These researchers hypothesized that an integrated model of leadership would result in high quality teaching and high levels of student learning within schools participating in educational reform. Data from this study confirmed the authors’ hypothesis, that schools where an integrated leadership style was used, exhibited higher levels of pedagogy and higher levels of student achievement as compared to those where either transformational or instructional leadership were used. As schools continue their implementation of Common Core Standards, principals must understand the benefits of varied models of leadership and the development of professional capital, as they pertain to teaching and learning. Doing so will allow principals to create conditions for positive change that support educational reform and initiatives.

**Significance to Educational Leadership**

Changes in educational policy and sweeping reform movements, such as standardization, have dramatically impacted the roles and responsibilities of school leaders. Adoption of the Common Core Standards has caused school districts across the country to make immediate changes in their curriculum, assessments and delivery of instruction to ensure implementation of the Common Core Standards with fidelity. Without a specifically defined curriculum, application of the standards has been at the discretion of individual districts and schools. Successful implementation has relied
heavily on the leadership of school principals and other building level leaders as they look to achieve expected outcomes of college and career readiness. Elementary school principals have been called upon to lead their schools in creating conditions for positive change as they build teacher capacity for the implementation of rigorous standards aimed at preparing students for college and the workplace.

An extensive body of literature exists that discusses school reform and the role of educational leaders in implementing change for increased student achievement. Waters et al. (2004) demonstrated that effective leadership dramatically impacts student achievement, with a .25 correlation between leadership and achievement. According to Davis, Darling-Hammond, LaPointe, and Meyerson (2005), only classroom instruction matters more than leadership and that the principal’s influence and abilities are critical to developing schools that promote effective teaching and learning for all students. Understanding specific leadership behaviors of elementary school principals that influence change for improved student learning has significant bearing on the field of educational leadership.

Standards based accountability, through the adoption of Common Core State Standards, will prompt elementary school principals to reflect on their role as instructional leaders, to thoroughly understand how their behaviors create conditions for positive change in the school setting. The principal, as an agent of change, has considerable influence in promoting a culture that embraces educational reform efforts. A positive culture will support schools as they overhaul curriculum, instruction, assessment and professional development as well as teacher evaluation systems during the transition
to the Common Core. It is critical to identify specific leadership practices and behaviors that have impacted the implementation of the Common Core Standards by creating conditions for positive change. According to Donaldson (2013), to successfully lead the implementation of the Common Core Standards, building leaders need to focus on developing the capacity of teachers through a model of shared leadership and collaboration emphasizing the development of human capital.

Equally, if not more important than the development of human capital, is the development of social capital. Fullan (2014) suggests that social capital is conveyed through the interactions and relationships that support a common cause within a school. Fullan claims that schools with strong social capital lead to school-wide success and that building social capital is an essential role of school principals. Carrie Leana’s (2011) research supports this belief. Social capital, according to Leana focuses on the relationship amongst teachers and not only on their individual abilities, knowledge or skills. Leana researched the impact of social capital and human capital on math achievement during a one-year period in New York City schools. Leana found that schools with the highest level of growth focused on both human capital and social capital by making change through collaborative efforts. She found that teacher social capital was a predictor of student achievement even beyond teacher experience. Additionally, Leana conducted research in the Pittsburgh public schools to determine the impact principals had on teacher efforts related to developing social capital. A decade of research led Leana to conclude that, “the more effective principals were those who
defined their roles as facilitators of teacher success rather than instructional leader” (p. 35).

In 1990, a 15-year longitudinal study of Chicago’s elementary schools began which allowed researchers to identify key elements of improving schools as compared to schools that did not demonstrate improvement. Leadership specifically that of the school principal, was among the five key factors associated with school improvement (Bryk, 2010). Specific characteristics found in principals working in productive and improving schools were their ability to create a culture of collaboration and enlist the leadership of others (Bryk, 2010; Sebring & Bryk, 2000).

Fullan (2001) shares that school culture has a significant positive or negative impact on school improvement and argues that teacher capacity is an essential component of successful school reform. According to Hoy and Woolfolk (as cited in Walker and Slear, 2011), teacher efficacy is an essential aspect of effective teaching that results in higher levels of student achievement. Identifying specific leadership behaviors of school principals that have been linked with positive school reform and the development of teacher efficacy will have considerable impact on elementary schools as Common Core Standards are implemented across the country.

**Kentucky Implements the Common Core Standards**

Data from the Southern Regional Education Board (SREB) has identified Kentucky as an early adopting state that has also been recognized as a leading or strong state in five related areas which include: Time and Approach to Standards and Assessments, Common Core Aligned Teaching Resources, Professional Development,
Evaluation of Teachers and Leaders and Accountability (Southern Regional Education Board, 2014). Communication represents an additional area of strength for Kentucky as it initiated the implementation of Common Core. “Parents, teachers, community members, businesses, institutions of higher education, and student advocates must be engaged regularly for the Common Core to be implemented successfully” (Martin, Marchitello & Lazarin, 2014; Pierce, 2015). According to Martin et al. (2014), Kentucky engaged stakeholders with a robust communication plan, sharing changes to the state’s educational system. According to results of an anonymous survey given to Kentucky teachers, 86% of respondents indicated that they were prepared to teach the standards, and 90% found the new standards to be more rigorous than the previous state standards. As the first state to fully adopt the Common Core Standards, Kentucky initiated full implementation during the 2011-2012 school year. Therefore, elementary principals and teachers in the state of Kentucky will constitute the purposeful sample for this study.

**Proposed Methodology**

Effective leadership has a considerable impact on student achievement (Waters et al., 2004). Understanding specific leadership behaviors of elementary school principals that have influenced change for improved student learning will greatly affect the implementation of Common Core Standards and other change initiatives in schools throughout the country. Understanding the relationship between perceived principal behaviors and teacher receptiveness to change and the impact these have had on student growth will allow leaders to adjust their practices as they implement reform initiatives such as the Common Core. Surveying principals and teachers from elementary schools in
Kentucky, the researcher identified essential leadership practices and behaviors that created positive conditions for change and thus have supported the successful implementation of the Common Core Standards.

This study employed a cross-sectional and descriptive research design, using survey data to gather information concerning the relationship between variables without manipulating them. A cross-section of Kentucky principals and teachers that met specific research criteria were included as a sample from schools implementing the Common Core. Among other criteria principals were only included in this study if they had worked in their current school for three or more years. Survey results provided a description of the perceived leadership behaviors that were observed to have successfully created positive conditions for change during the implementation of the Common Core Standards. According to Marshall and Rossman (2006), researchers must identify methods for collecting data that are efficient, practical, feasible and ethical. An online survey meets these criteria and offers several distinct advantages when conducting educational research. Creswell (2012) shares that a cross-sectional survey has the advantage of measuring current practices and collects information quickly, at one point in time.

The survey was used to collect information regarding principal and teacher perceptions related to the implementation of Common Core Standards from elementary schools in Kentucky. Specific survey questions allowed the researcher to ascertain information about precise principal behaviors that promoted the professional capital of teachers during the implementation of Common Core Standards, by creating conditions
for positive change. Surveys were administered to both principals and teachers, allowing
the researcher to draw comparisons between these two groups.
CHAPTER II
LITERATURE REVIEW

Introduction

Research studies demonstrate a strong connection between the leadership of school principals and the direct and indirect impact their leadership has on school climate and therefore student achievement (Cotton, 2003; Leithwood, Louis, Anderson & Wahlstrom, 2004; Marzano et al., 2005). The role of school leaders has changed significantly, moving away from a view of principals as managers with a focus on operations (Brookover, 1978; Elmore, 1999; Hallinger, 1992) to a view of principals as instructional leaders and agents of change (Fullan, 2014; Marzano, 2003; Marzano et al., 2005). In this new role school principals are not only responsible for leading the learning of students but are equally as responsible for leading the learning of teachers (Fullan, 2014; Hargreaves & Fullan, 2012; Marzano et al., 2005; McKay, 2013).

The leadership of principals is critical to the successful implementation of any educational reform effort and will critically impact schools as they continue to implement the Common Core State Standards (Hall & Hord, 2011). This research study will examine the leadership of elementary school principals that have supported conditions for change, by building teacher capacity in order to successfully implement the Common Core State Standards. The Common Core State Standards represent a departure from traditional goals and expectations of U.S. schools with an emphasis on college and career
readiness. The process for implementing the Common Core Standards has been at the discretion of school leaders and therefore principals have been required to systematically change teaching and learning within their schools as they have transitioned from previously implemented state standards (Achieve, 2012; Reed, 2013).

Examining the practices of school principals within a leading state associated with the implementation of Common Core Standards will allow others to benefit from their experiences. The objective of this research is to identify specific leadership behaviors of elementary principals that created conditions for positive change during the implementation of the Common Core Standards, based on surveys completed by principals and teachers from elementary schools in Kentucky. The Southern Regional Education Board (2014) has recognized Kentucky, the first state to adopt the Common Core, as a leading or strong state in five related areas of Common Core implementation. These include: Time and Approach to Standards and Assessments, Common Core Aligned Teaching Resources, Professional Development, Evaluation of Teachers and Leaders and Accountability. Surveying principals and teachers in Kentucky this study seeks to answer the following research questions:

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?

   a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?

   b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?

   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

**A Historical Review of Educational Reform, Policy and Law**

In order to better understand the Common Core State Standards Initiative, it is necessary that one gain a historical perspective of educational reform movements, policy and legislation that have impacted standards, educational equity, instruction, assessment, accountability and funding. The Common Core Standards builds upon the legacy of previous reform efforts aimed at improving public education. Examples of educational reform efforts and legislation include: The Elementary and Secondary Education Act of 1965 (ESEA), The Education for All Handicapped Children Act of 1975, *A Nation at Risk* (1983), the Illinois Education Reform Act of 1985 and the Improving America’s Schools Act of 1984, the No Child Left Behind Act of 2001 (NCLB) as well as the Every Student Succeeds Act (ESSA) of 2015.
The Elementary and Secondary Education Act of 1965 (ESEA)

President Lyndon B. Johnson signed Public Law 89-10, otherwise known as the Elementary and Secondary Education Act of 1965, into law in April 1965 (ESEA, 1965). ESEA was comprised of five major sections, referred to as titles, supporting different areas of educational change (ESEA, 1965; Jennings, 2015) and provided billions of dollars in funding to public schools (Jennings, 2015; Umphrey, 2012). The five sections, or titles, outlined in the ESEA included: (1) Title I: Education of Children of Low Income Families, (2) Title II: School Library Resources, Textbooks, and Other Instructional Materials, (3) Title III: Supplementary Educational Centers and Services, (4) Title IV: Educational Research and Training, and (5) Title V: Grants to Strengthen State Departments of Education (ESEA, 1965; Bryan & Chalfant; 1965; Educationlaws.com, 2015). Title I was considered the most significant initiative of the ESEA with the purpose of providing funding to local school districts serving student populations identified as educationally disadvantaged and low-income (Jennings, 2000; Standerfer, 2006).

The Elementary and Secondary Education Act was enacted at the peak of the civil rights movement with a mission of increasing the equity of educational opportunities for students living in poverty as well as students of color (Hewitt, 2011). This legislation was a part of President Johnson’s War on Poverty policy programs (Hewitt, 2011; Standerfer, 2006; Thomas & Brady, 2005). Broadening the role of the federal government in public education (Hewitt, 2011; Jennings, 2015; Standerfer, 2006) ESEA impacted educational reform by granting billions of dollars in funding to schools
throughout the country and led to the development of legislation to improve the quality of education for all students. The Elementary and Secondary Education Act laid a foundation for reform and educational policy in areas such as educational standards, educating students with disabilities and providing federal funding for immigrant children to learn English (ESEA, 1965; Jennings, 2015). ESEA offered grants to school districts serving low-income students and also provided federal grants for text and library books. Federal grants were also provided to state educational agencies to improve the quality of elementary and secondary education (U.S. Department of Education, 2015a). Many of these supports for reform efforts continue to exist.

Despite the many benefits resulting from the Elementary and Secondary Education Act, the misappropriation of Title funds prompted four amendments to ESEA over a 15-year period, addressing ongoing concerns affecting the equity for educationally disadvantaged students (McDonnell, 2005; Thomas & Brady, 2005). Over this period of time educational equity became a primary focus of the federal government and remains a primary focus today with the reauthorization of the Elementary and Secondary Education Act, as the Every Student Succeeds Act of 2015, which replaced the No Child Left Behind Act of 2001.

**The Education for All Handicapped Children Act of 1975**

A number of significant court decisions in the early1970s addressed inequities pertaining to the educational opportunities for children with disabilities. Two landmark decisions that paved the way for reform for students with disabilities were the Pennsylvania Association for Retarded Citizens (PARC) v. Commonwealth of

In the PARC case, the Pennsylvania Association brought a class action suit against the Commonwealth of Pennsylvania for Retarded Citizens, in January of 1971. The suit alleged that the state failed to provide a free, public education to mentally retarded children (Martin, Martin & Terman, 1996; Weintraub et al., 1977; Zettel, 1977) representing a denial of equal protection provided under the fourteenth amendment.

Ruling in favor of the plaintiffs the courts required that by 1971 all plaintiffs would be reevaluated and placed in educational programs. Additionally, by September 1972, all mentally retarded children between the ages of 6 and 21 were to receive a publicly supported education. Districts providing preschool to any child were required to provide the same for students with mental retardation and finally, due process rights were established for students with mental retardation (Weintraub et al., 1977; Zettel, 1977). A summary of the court’s decision states that:

The Commonwealth's obligation to place each mentally retarded child in a free, public program of education and training appropriate to the child's capacity, within the context of a presumption that, among the alternative programs of education and training required by statute to be available, placement in a regular public school class is preferable to placement in a special school class and placement in a special public school class is preferable to placement in any other type of program of education and training. [PARC (1971), at 1260]

Shortly following the PARC decision, the Mills case was initiated on behalf of seven children who were not attending school and living in the District of Columbia.
These students had disabilities that included: behavior problems, hyperactivity, intellectual disabilities, physical impairments and epilepsy (Yell, 1998). This class action suit alleged that the Board of Education, the Department of Human Rights and the Mayor had denied handicapped students a public education by excluding them from school, based on their various disabilities (Zettel, 1977; Zettel & Abeson, 1978). Zettel and Ballard (1982) remarked that the Mills decision was rooted in the Fourteenth Amendment and that students were excluded from school without due process. The verdict of the Mills case resulted in a publically supported education for all handicapped children regardless of the severity of their handicapping condition (Weintraub et al., 1977). The court outlined due process safeguards including: (1) the right to a hearing with representation, (2) an impartial hearing officer, (3) the right to appeal, (4) the right to have access to records, and (5) the requirement of written notice at all stages of the process (Zettel & Ballard, 1982).

These landmark decisions served as an impetus for federal legislation regarding the education of handicapped students. The Education for All Handicapped Children Act (PL-94-142) addressed inequities in the educational system for students with disabilities. In November of 1975, Congress passed the Education for All Handicapped Children Act, which required, among other things, that all students regardless of ability receive a free and appropriate public education in the least restrictive environment (National Education Association, 1978; Schuster, 1985). Prior to the passage of this law students with disabilities often received an inadequate education in segregated school settings (Keogh,
The four main purposes of The Education for All Handicapped Children Act (PL-94-142) included:

1. to assure that all children with disabilities have available to them … a free appropriate public education which emphasizes special education and related services designed to meet their unique needs;
2. to assure that the rights of children with disabilities and their parents … are protected;
3. to assist States and localities to provide for the education of all children with disabilities;
4. to assess and assure the effectiveness of efforts to educate all children with disabilities. (Education for All Handicapped Children Act, 1975)

In addition to providing the right to a free and appropriate education, PL-94-142 provided children with disabilities a number of safeguards. These included safeguards such as the right to non-discriminatory testing and evaluation, due process, and a parent's right to access to his or her child's records as well as a right to an individually designed education plan (Education for All Handicapped Children Act, 1975; Zettel, 1977).

The Education of all Handicapped Children Act (1975) was amended in 1986 and again in 1990 when it was renamed the Individuals with Disabilities Education Act of 1990 (IDEA). IDEA expanded special education to include options for instruction in the classroom, in the home, in hospitals and institutions, as well as in other settings including the work place and training centers. The amendments made in 1990 also mandated transition services as part of the Individualized Education Plan (IEP) for students before
turning 16 years old. Assistive technology services were also defined, and autism and traumatic brain injury were added to the list of eligibility areas for special education and related services (IDEA, 1990; Underwood, 1996). Broadening the areas of special education eligibility and increasing options for the instruction of disabled students, IDEA reformed schools and schooling for by providing more equitable opportunities for the disabled.

Reform in the mid-twentieth century focused on educational equity. The Elementary and Secondary Education Act of 1965 focused the federal government on providing educational equity for all students, including students of color and those living in poverty. Educational equity was again center stage with the landmark decisions in the PARC and Mills cases, resulting in the Education for All Handicapped Children Act, which improved equity of educational opportunities provided to students with disabilities. The focus of the federal government’s role in education shifted in the 1980s, under President Ronald Reagan. The Regan administration concentrated on educational excellence as opposed to educational equity, which resulted in the publication of A Nation at Risk, under the direction of Secretary of Education, T.H. Bell (McDonnell, 2005; Thomas & Brady, 2005).

A Nation at Risk, 1983

In response to concerns about the state of the American educational system, Secretary of Education T.H. Bell created the National Commission on Excellence in Education on August 26, 1981. Bell directed the Commission to make a report to the
In 1983 the U.S. Department of Education issued a report by the National Commission on Excellence in Education titled, *A Nation at Risk*. This report proclaimed that, “the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people” (National Commission Excellence in Education, 1983). According to the U.S. Department of Education, *A Nation at Risk* highlighted a variety of challenges that included inadequate performance on international tests as compared to other industrialized nations. Additional challenges identified included an illiteracy rate of 13% among 17 year-olds, declining student achievement on standardized tests, SATs and college assessments as well as a dramatic increase in the need for remedial math courses at the college level (National Commission Excellence in Education, 1983; U.S. Department of Education, 2008). This report drew attention to the inferior state of the American educational system and paved the way for current reform initiatives such as the Common Core State Standards. Reforms resulting from the publication of *A Nation at Risk* included:

- Content and Curriculum: The Commission recommended increased requirements for high school graduation to include four years of English, three years of mathematics, science and social studies as well as one-half year of computer science. Other recommendations related to content included improved curriculum in the fine arts and foreign language.
• Standards and Expectations: Increased expectations for grading using rigorous standards were suggested in the reports as well as expectations for standardized testing at critical transition points for students. Improvements in textbooks and other teaching resources were recommended as well to ensure the most current materials were used to educate students.

• Time: The Commission advocated for lengthening the school day and school year and made recommendations for more effective use of instructional time.

• Teaching: Improvements regarding teacher preparation were suggested to ensure improved teacher training programs at colleges and universities. In addition, the report provided suggestions to make teaching a more rewarding and respected profession by improving salaries, creating time for professional development and through the use of incentive programs.

• Leadership and Fiscal Support: The Commission called for a distinction between managerial roles and leadership roles, emphasizing leadership at the school and district levels. The report encouraged fiscal support at all levels and called upon the American people to provide the financial support required to meet the proposed reforms contained within the report. (Cain, Melcher, Johns, Ashmore, Callahan, Droper, Beveridge, & Weintraub, 1984; Gardner, 1983; Hunt, 2008; National Commission on Excellence in Education, 1983)

In addition to the reforms listed above, the Commission made nine clarifications identifying what a student should be able to do after engaging with a given curriculum (Hewitt, 2008). The true impact of A Nation at Risk has been debated for over three
decades. Despite the fact that the report prompted increased funding in some states, triggered the standards movement and increased the focus on accountability within the states, reform efforts prompted by *A Nation at Risk* did not produce significant change as intended (Bell 1993; Hewitt, 2008). A 2008 report titled, *A Nation Accountable, Twenty-Five Years After a Nation at Risk*, summarized these changes and stated that:

> If we were “at risk” in 1983, we are at even greater risk now. The rising demands of our global economy, together with demographic shifts, require that we educate more students to higher levels than ever before. Yet, our education system is not keeping pace with these growing demands. (U.S. Department of Education, p. 1, para. 3)

According to Conley (2014b), “The role of the new common standards is to ensure that all students are able to be successful in an economy and society that is changing at a remarkable pace and that will continue to do so throughout their lifetimes” (p. 1). Building the capacity of teachers to successfully implement the Common Core can be supported through the ongoing development of teachers, individually and collectivity. Hargreaves and Fullan (2012) support the development of professional capital as a means of transforming the teaching profession to meet the demands of providing a high quality education to all students. According to Hargreaves and Fullan (2013), the development of professional capital, “requires technical knowledge, high levels of education, strong practice within schools, and continuous improvement over time that is undertaken collaboratively, and that calls for the development of wise judgment” (p. 37). This study seeks to identify specific leadership behaviors that built
the professional capital of teachers during the implementation of the Common Core to support the development of an education system that keeps pace with the growing demands of our global economy.

**Illinois Responds to *A Nation at Risk***

States across the country responded to *A Nation at Risk* by implementing numerous educational reforms (Achieve, 2000). Like other states, Illinois passed legislation to improve the educational system for all students. In 1985, the Illinois Legislature passed a comprehensive reform package titled the Educational Reform Act, largely contained in SB 730 (later known as Public Act 84-126) which included 169 topics designed to strengthen the public school system across the state (Achieve, 2000; Illinois State Board of Education, 1986; Nowakowski & First, 1989; Sevener, 1991).

This reform package followed numerous studies and state reports including those given by the House Speaker, Michael Madigan and Governor James Thompson (Nelson, 1985; Ward, 1986). In a speech given at the 1985 Joint Annual Conference of the Illinois Association of School Boards, the Illinois Association of School Administrators and the Illinois Association of School Business Officials, State Superintendent Ted Sanders shared key themes of the new reform package including:

- Providing a new vision of education
- Extending education to at risk students not currently being served
- Improving the quality of school personnel
- Encouraging reorganization and consolidation of school districts
- Striking a balance between state mandates and local control
• Leaving school finance as an incomplete agenda item to be considered from 1985-1987. (Ward, 1986)

Public Act 84-126 went into effect in August 1985 amending the Illinois School Code to include a definition of schooling for the first time in the history of the state. This act also included public reporting systems and other accountability measures (Bettis, 2004; Illinois State Board of Education, 1986; Ward, 1986). In order to ensure that all students learned what state and local districts deemed as important Public Act 84-126 mandated the following requirements:

• The State Board of Education established goals consistent with the defined purpose of schooling in the state of Illinois.

• School districts developed local goals for excellence.

• Local districts developed student learning objectives to meet or exceed goals established by the State Board of Education. These were to be publicized along with information about student achievement in relation to goals and objectives.

• The State Board of Education established assessments for all local districts to administer within a specific time frame. School districts were required to assess learning to determine the degree to which objectives were being met in, at a minimum, grades 3, 6, 8, and 10.

• School districts were required to develop school improvement plans in areas where local objectives were not met.
• All local district objectives, assessments systems, improvement plans and communication for public reporting were to be approved by the State Board of Education. (Illinois State Board of Education, 1986; Ward, 1986)

As a result of changes mandated within the Education Reform Act of 1985 explicit goals and assessments were established in the areas of language arts, mathematics, social science, biological and physical science, fine arts and physical development and health (Illinois State Board of Education, 1986; Sanders, 1986). The Illinois Goals Assessment Program (IGAP), a mandated state-wide assessment program, was designed to measure student progress in the areas of reading, writing, mathematics, social science, science and fine arts, with assessments beginning in the spring of 1988 (Bettis, 2004; Achieve, 2000; Sevener, 1991; Nelson, 1985).

IGAP assessments were mandated in specific goal areas beginning with reading in 1988. Mathematics testing was added in 1989 and IGAP writing was added in 1990 with science added the following year. However, changes in legislation altered the IGAP testing schedule and in 1993 students at grades 3, 6, 8, and 10 were assessed only on the IGAP reading, math and writing tests. Science and social science tests were administered to students at grades 4, 7 and 11. Initially, only school and district IGAP scores were reported. The Illinois State Board of Education began reporting individual IGAP scores in 1994 (Illinois State Board of Education, 2015). Students were assessed on the IGAP through the spring of 1998 when the state transitioned to the Illinois Standards Achievement Test (ISAT).
Educational reform in Illinois was ignited by the publication of *A Nation at Risk* in 1983. The state of Illinois responded to this report as well as those conducted previously by state agencies and government officials in the areas of special education, bilingual education, physical education, instructional programs and school day and school year requirements. The transformative reform package of 1985 focused on student learning, including the establishment of state goals, state and local objectives, assessments (IGAP) and accountability in the form of reporting systems and school improvement plans. Striking a balance between state mandates and local control, 1985 marked a significant year in the history of education for the state of Illinois.

**Improving America’s School Act and Goals 2000**

Widespread standards-based reform did not occur until the last decade of the twentieth century. Standards-based reform was promoted at the state level by the reauthorization of the Elementary and Secondary Education Act, renamed the Improving America’s School Act (IASA) by the Clinton administration, within the framework of Goals 2000: Educate America Act (Goertz, 2007; IASA, 1994; Riley, 1995; Standerfer, 2006). IASA focused on four key elements of educational improvement including: (1) high standards for all students, (2) teacher training, (3) accountability, and (4) partnerships between families, the community and the schools (Riley, 1995). Adopted by Congress in 1994, Goals 2000 created eight national goals with an expectation of achievement by the year 2000. This included six goals previously established by The National Governors’ Association. The legislation intended to provide a framework for the federal government to assist the states in implementing educational reform (Brewer &
Hollingsworth, 1999). According to Riley (1995), the IASA provided federal dollars in a manner that contained fewer stipulations than in the past. The newly formed National Education Standards and Improvement Council (NESIC) promoted the development of national standards and assessments (Goertz, 2007; Hamilton et al., 2008) led Goals 2000. Immediately, more rigorous standards and assessments began to replace existing, low-level state standards (Goertz, 2007).

With a renewed focus on student performance (Hamilton et al., 2008), Goals 2000 supported states that voluntarily created programs to promote these national goals (Fraser, 1996; Stedman, 1994; Webb, 2006). Supplemental federal funding was provided to states that aligned newly developed standards with high quality assessments (Goertz, 2007; Standerfer, 2006). Federal resources were intended to underwrite the development and implementation of challenging state standards (U.S. Department of Education, 1999).

Although progress was made towards the eight goals supported by the Clinton administration the nation did not meet the national goals outlined in Goals 2000. In a report titled, Federal Education Legislation Enacted in 1994, the U.S. Department of Education (1999) noted that despite improvements in some areas (specifically reading and math) the impact of standards-based reform was slow, particularly as it related to performance based standards. This report further identified inconsistencies corresponding to the rigor of standards across states with little evidence that states had benchmarked standards against outside criteria. The shortcomings of Goals 2000 and the Improving Americas School act paved the way for the next generation of educational reform – The No Child Left behind Act of 2001.
The No Child Left Behind Act of 2001

President George W. Bush changed the landscape of the American educational system when in January of 2002 he signed into law the No Child Left Behind Act of 2001, referred to as NCLB (NCLB, 2001). President Bush described NCLB as “the cornerstone of my administration” (NCLB, 2001; U.S. Department of Education, 2003) and responded to widespread concerns that the educational system was not rigorous and lacked accountability. The No Child Left Behind Act reauthorized the Elementary and Secondary Education Act of 1965 and was designed to increase the academic achievement of elementary and secondary students and to increase the accountability of schools, districts and states regarding student achievement (Cortiella, 2006; NCLB, 2001; Standerfer, 2006). NCLB produced immediate changes regarding federal efforts to support education in the United States. Provisions under NCLB were rooted in four overarching principles:

- Accountability for results: Under No Child Left Behind states will work to close the achievement gap for all students, which includes specified subgroups. Annual report cards will include information regarding achievement and student progress. Supplemental support and services will be provided to students in schools not making progress.

- Using scientific research to do what works: NCLB stresses the use of educational practices and programs that are research based. One example includes the use of the Reading First program, which focuses on strengthening instructional skills for reading teachers in lower grades.
• Expanding options and involvement of parents: Parents will be given options regarding where the child attends school if their current school is considered low performing.

• Increasing local control and flexibility: With increased flexibility in how they use federal dollars, school districts will be able to use funds to address their specific needs in areas such as teacher training and hiring. (Cortiella, 2006; NCLB, 2001; U.S. Department of Education, 2003)

The passage of NCLB substantially increased accountability, making it a foundation of Bush’s educational agenda. Accountability came in the form of mandated annual state testing and reporting as well as requirements for making Annual Yearly Progress (AYP). Schools were required to demonstrate that all students, including all subgroups, made annual yearly progress and demonstrate proficiency in the areas of math and reading based on state assessments (Cortiella, 2006; Linn, Baker & Betebenner, 2002; NCLB, 2001; Standerfer, 2006). Subgroups included minority students, students with disabilities, English language learners, low-income students as well as students of specific racial and ethnic groups (Darling-Hammond, 2007; U.S Department of Education, 2001).

NCLB required many states to make immediate changes regarding testing and accountability systems. In order to bring all students to proficiency in reading and math by 2014, as mandated by NCLB, states and districts were required to:

• Create challenging academic standards for all students

• Align annual assessments to state standards
• Hire highly qualified teachers
• Determine the amount of progress schools must achieve annually to ensure one hundred percent of students would reach proficiency in math and reading on state assessments by the year 2014
• Determine the minimum size required for subgroups to be included in AYP calculations
• Publicize an annual state report card regarding performance at all levels.
  (Cortiella, 2006; Hamilton et al., 2008; NCLB, 2001; Standerfer, 2006; U.S. Department of Education, 2003)

Requirements mandated by NCLB were enacted without a clear implementation plan nor was appropriate funding provided to assist states in achieving the expected levels of success (Darling-Hammond, 2007). As a result, many schools with high achieving students were regarded as failing in regards to specific sub-group populations (Darling-Hammond, 2007). Despite good intentions, there were unintended consequences of the increased accountability mandated by NCLB. One such consequence was an overemphasis on teaching in assessed areas (math, reading and science) at the expense of instruction in other subject areas such as social studies, the arts and physical education (Consortium for Policy Research in Education, 2009; Hamilton et al., 2008; Newberg-Long, 2010). There was also increased time spent on preparing for the state tests thereby diminishing time dedicated to teaching and learning (Ellis, 2007; Guilfoyle, 2006). In some cases, states actually lowered their attainment levels for meeting and exceeding
standards, creating a false appearance of higher levels of student achievement (Karp, 2003).

Similar to previous legislation such as the Improving America’s School Act, NCLB was rooted in standards-based education reform (McDonnell, 2005) with a central focus on the education of subgroups, including race, disability, English Language proficiency and socioeconomic status, which had often been underserved (Goertz, 2007; NCLB, 2001). However, due to differences in the rigor of state developed standards, significant variations in state assessments as well as discrepancies pertaining to the level of performance required to attain proficiency in math and reading on state assessments, states were not playing on a level playing field under NCLB. Essentially the task of meeting AYP was more demanding in states with ambitious standards and assessments as compared to states with less rigorous standards making it impossible to compare progress across states (Linn et al., 2002).

Applauded for its attempt to improve the education of our nation’s children, specifically requiring progress for all subgroups of students, NCLB has been met with mixed results and has not eliminated inequities in the educational system that continues to exist (Hamilton et al., 2008; Rothstein & Jacobsen, 2006). The number of schools meeting AYP in 2010 was only 62%, which resulted in many states receiving waivers from the Obama administration regarding NCLB requirements. In exchange for receiving a waiver, states agreed to either having their institutions of higher learning certify that state standards were rigorous or by adopting the Common Core State Standards.
**Every Student Succeeds Act of 2015**

President Obama signed the Every Student Succeeds Act (ESSA) into law on December 10, 2015, reauthorizing the Elementary and Secondary Education Act. The Every Student Succeeds Act honors the commitment of ESEA to provide equal educational opportunities to all students. President Barack Obama stated that, “With this bill, we reaffirm that fundamentally American ideal—that every child, regardless of race, income, background, the zip code where they live, deserves the chance to make of their lives what they will” (U.S. Department of Education, 2015b).

The Every Student Succeeds Act received strong bipartisan support, and replaced the No Child Left Behind Act of 2001. The Every Student Succeeds Act supports systems of accountability but unlike NCLB it places the responsibility for holding schools and districts accountable in the hands of the state, requiring states to redirect resources to the lowest performing schools and students (Alliance for Excellence in Education, 2015; U.S. Department of Education, 2015c). The Obama administration has recognized that the goals of NCLB were sound goals, many of which emphasized the need for high quality teachers and high standards for student successes with increased accountability. However, The Obama administration found the goals of NCLB difficult to implement and Obama has said the following about the No Child Left Behind Act. “But in practice, it often fell short. It led to too much testing during classroom time, forced schools and school districts into cookie cutter reforms that didn’t produce the kind of results that we wanted to see” (Layton, 2015, p. 1).
The Every Student Succeeds Act builds upon the success of previous legislation and educational policies and aims to improve the education system by:

- Ensuring that states set high standards so that children graduating from high school are college and career ready.
- Maintaining accountability by guaranteeing that when students fall behind, states target resources towards what works to help them and their schools improve. A focus will be placed on the lowest-performing five percent of schools, high schools with high dropout rates, and schools where subgroups of students continue to struggle.
- Empowering state and local decision-makers to develop their own systems for school improvement based upon evidence, rather than imposing federal solutions like No Child Left Behind did.
- Preserving annual assessments and reduce the burden of unnecessary and ineffective testing on students and teachers, making sure that standardized tests do not decrease time spent on teaching and learning. This will be done without forgoing annual information parents and educators need to ensure student learn and grow.
- Providing more children access to a high-quality preschool education.
- Establishing new resources to test promising practices and replicate proven strategies that will drive opportunity and better outcomes for America’s students. (Alliance for Excellence in Education, 2015; U.S. Department of Education, 2015b; U.S. Department of Education, 2015c)
The Every Student Succeeds Act upholds the commitment of states across the country to prepare students for college and career through rigorous standards, such as the Common Core.

**The Common Core State Standards**

**Purpose of the Common Core State Standards**

The American educational system has witnessed numerous changes as it pertains to standards based learning. According to Conley (2014b), all states have had grade-level educational standards for at least a decade that identify the knowledge and skills students’ need to master at each grade level. Standards-based reform has been part of the national education agenda for the past several decades (Marzano & Kendall, 1996; Rothman, 2011; United States Department of Education, 2008) and became widespread following the passage of NCLB in 2002. *A Nation at Risk* ignited the standards movement by requiring the development of high educational standards with aligned assessments (Hamilton et al., 2008; Liebtag, 2013). NCLB took this one step further by increasing accountability of states to ensure that all students met standards, based on assessments given to students at various grade levels in math, reading and science (Webb, 2006).

Although there is no universally accepted definition of standards-based reform, according to Hamilton et al. (2008) the following are components typically found in discussions pertaining to standards-based reform:

- Academic expectations identifying student outcomes
- Alignment of the educational system to support expectations
- Assessments of student achievement
- Decentralization of decision making in the areas of curriculum and instruction
- Support and technical assistance
- Increased accountability

Each state developed its own set of standards as a result of NCLB which led to discrepancies between states in regards to what students were expected to know and in relation to how proficiency was defined (Brown & Rocha, 2005; Cronin, Dahlin, Adkins, & Kingsbury, 2007; Phillips, 2010; Rothman, 2011). In some cases, states set standards that were far below expectations necessary for college and career readiness. According to Rothman (2011), data from the National Assessment of Educational Progress given every other year as required by NCLB, demonstrated significant differences in results as compared to state assessments. Many educational leaders encouraged the development of a set of national standards to increase equity among all states and to ensure that U.S. students could compete on a global scale (Kornbacher et al., 2014; McLaughlin & Overturf, 2012).

Sponsored by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO) the Common Core State Standards represented a substantial change from previous state standards, which were disparate in regards to rigor and expectations. The Common Core State Standards were released in June 2010 following a state led effort to establish common standards for all students across the states. In addition to improving the quality of the American educational system, the Common Core Standards provide an opportunity to guarantee greater equity in terms of content and rigor for all students across the nation (Conley, 2014b; Schmidt &
Burroughs, 2012; Schmidt & McKnight, 2012). Aimed at erasing the inequities created by individual state standards the Common Core Standards build upon existing state standards, incorporate expectations of other high performing countries throughout the world and promote the mission established by the National Governors Association and the Council of Chief State School Officers.

The mission of the Common Core State Standards is:

To provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. (Common Core State Standards Mission Statement, 2012, para. 1)

**Development of the Common Core State Standards**

Preparing students for college and career is a central purpose of the Common Core State Standards (Blosveren, Liben & DeWitt, 2014; Common Core State Standards: About the standards, 2015; Conley, 2014a; McLaughlin & Overturf, 2012). The Common Core Standards were developed in response to the changing United States economy which requires higher levels of college and career readiness (Conley, 2014a; Conley, 2014b). Rothman (2011) shares that the demand for U.S. college graduates is exceeding the number of current graduates, despite the fact that there has been an increase in the graduation rate. The rate of college graduation of other countries continues to exceed
that of the U.S. Furthermore; fewer high school students are meeting benchmark scores in all four areas of the ACT, which include English, mathematics, reading and science, demonstrating a lack of college readiness among many high school students (Rothman, 2011).

In June 2009, 49 states and territories joined the Common Core State Standards Initiative led by the National Governors Association Center for Best Practices and the Council of Chief State School Officers (Conley, 2014a; National Governors Association, 2009). This followed a report released by the National Governors Association, The Council of Chief State School Officers and Achieve, Inc. (2008) that recommended states, “Upgrade state standards by adopting a common core of internationally benchmarked standards in math and language arts for grades K-12 to ensure that students are equipped with the necessary knowledge and skills to be globally competitive” (p. 6).

The authors of the Common Core developed standards that are fewer in number and of a higher level of cognitive challenge as compared to previously developed state standards (Conley, 2014b; Drew, 2012; Phillips & Wong, 2010). The standards, aimed at college and career readiness, were rooted in research and the success of other countries. When developing the standards, the authors of the Common Core examined the college expectations for incoming freshmen and studied and measured the time necessary to teach core content as well as the academic demands of students in other countries (Bill & Malinda Gates Foundation, 2015). Designed with the end in mind, the authors of the CCSS began with the development of high school standards and then worked backward
eventually developing kindergarten standards (Conley, 2014a). Feedback resulted in multiple revisions prior to the 2010 final draft of the Common Core State Standards.

The CCSSO and NGA embarked on a mission to create standards that were research and evidence-based, internationally benchmarked, aligned with college and work expectations and that included rigorous content and skills (National Governors Association, 2009). The Common Core standards were released in June 2010 and filled the commitment of the Council of Chief State School Officers (CCSSO) and the National Governors’ Association (NGA) to develop a common set of expectations for all K-12 students in the areas of English Language Arts and mathematics. The initial drafts of the standards were shared with all state education agencies, educators, and the public for review and feedback (Conley, 2014a).

The Common Core State Standards were developed in collaboration with teachers, administrators, and experts with a focus on establishing clear and consistent goals for learning to prepare America’s children for success in college and career, regardless of zip code (Achieve, 2012; Common Core State Standards Initiative, About the Standards, 2015; King, 2011; National Governors Association, 2009). The Common Core Standards are explicit in their focus and provide for “fewer, clearer, and higher” standards as compared to state standards in both English Language Arts and mathematics (Neal, 2014; Rothman, 2011; Phillips & Wong, 2010). The Standards are robust and relevant to the real world, reflecting the knowledge and skills that are required of students for success after high school. The standards demonstrate what students are expected to
learn at each grade level, so that parents and teachers can support their learning. The standards are:

- Research and evidence based
- Clear, understandable, and consistent
- Aligned with college and career expectations
- Based on rigorous content and the application of knowledge through higher-order thinking skills
- Built upon the strengths and lessons of current state standards
- Informed by other top-performing countries to prepare all students for success in our global economy and society. (The Common Core State Standards Initiative, Read the Standards, 2015)

The Common Core Standards emphasize the development of critical thinking, problem solving, and analytical skills that students will need to have in order to be prepared for current entry-level careers, freshman level college courses, and workforce training programs (Common Core State Standards: What Parents should know, 2015). The College and career anchor standards are aimed at preparing students exiting twelfth grade to enter college or the workforce and support students in meeting the current demands of college and careers (Conley, Drummond, de Gonzalez, Rooseboom & Stout, 2011; McLaughlin & Overturf, 2012). These provide a foundation for all other standards and support the belief that college and career ready students:

- Demonstrate independence
- Build strong content knowledge
• Respond to varying demands of audience, task, purpose and discipline
• Comprehend and critique
• Value evidence
• Use technology and digital media Strategically
• Understand other perspectives and cultures. (National Governors Association, 2014)

Implementation of the Common Core State Standards

Following the adoption of the Common Core State Standards, districts across the country began the implementation process without stipulated procedures or a specified curriculum to guide them. To date (November, 2017), 42 states, as well as the District of Columbia, and four territories have adopted the full Common Core State Standards (Common Core State Standards: Standards in your state, 2015). However, the development and implementation of curriculum to meet the goals outlined in the Common Core have been left to individual states and school districts with the ultimate responsibility in the hands of school leaders. The transition to Common Core Standards has proven to be a challenge for most schools with newly defined, specific grade level standards that are rigorous, internationally benchmarked and contain higher levels of cognitive demand than previously implemented state standards (Common Core State Standards Initiative: Introduction, 2014; National Governors Association, 2014). School districts and individual schools must develop a plan for developing and aligning curriculum, assessments and professional development to ensure a smooth transition throughout the implementation of the CCSS (Kober & Rentmer, 2012).
As building level leaders are called upon to implement Common Core Standards with fidelity, the role of the principal will be redefined with increased expectations for shared leadership in an effort to build teacher capacity, efficacy and accountability. School leaders will need to create a system that allows for the effective implementation and assessment of the CCSS (Hall & Hord, 2011). Building level leaders must consider the progression of standards across grade levels requiring increased opportunities for discourse and planning to promote vertical articulation (Achieve, 2012; Haycock, 2012). Implementation of the Common Core requires systemic changes and adequate supports for teachers in making the instructional shifts required by the Common Core Standards. These shifts include:

**English Language Arts/literacy:**

- Informational text: Building knowledge through content rich nonfiction texts and informational texts
- Citing evidence: Reading, writing and speaking grounded in evidence from text
- Complex text: Regular practice with complex text and its academic vocabulary

**Mathematics:**

- Focus: Focus strongly where the standards focus
- Coherence: Thinking across grades, and link major topics within grades.
- Rigor: In the major topics, peruse conceptual understanding, procedural skill and fluency, and application with equal intensity. (Chalk et al., 2013)
Standards-based reform, No Child Left Behind and most recently the development of the Common Core State Standards have resulted from a renewed focus on increasing student learning outcomes in an effort to prepare students for college and careers as they compete in a more globalized economy (Alliance for Excellent Education, 2014).

Although the Common Core Standards have increased the rigor and expectations for students in terms of what they need to know in order to be college and career ready, they do not dictate how the standards are implemented. Schools and teachers will determine how to implement the standards, selecting curriculum and resources. Principals will lead their schools through the implementation of the common core through ongoing professional development, curriculum development and the selection of resources to support instruction and learning.

According to Seashore Louis, Leithwood, Wahlstrom, and Anderson (2010), schools that have shared leadership beyond that of the school principal, are associated with better student performance on math and reading tests. This statement implies that principals should encourage leadership throughout the school. “Schools need to build strong cultures in which the many tasks of transforming schools require many leaders” (Seashore Louis & Wahlstrom, 2011, p. 1). Successful implementation of the CCSS is more likely to occur when schools develop a leadership team comprised of administrators and teachers to support improved instruction based on student (The Aspen Institute, 2013). A high-functioning leadership team provides the structure needed for schools to develop collaborative and collegial cultures where practice can improve systematically.
Elementary principals will need to create a culture of change that supports teachers in meeting the demands of developing college and career ready students. This requires principals to identify behaviors associated with creating positive conditions for change in schools that have demonstrated successful implementation the Common Core. The Every Student Succeeds Act of 2015 calls upon districts to improve the effectiveness of teachers, principals and other school leaders (Alliance for Excellence in Education, 2015). The ESSA has replaced the highly qualified teacher provision found in NCLB with requirements for student access to effective teaching which emphasizes equal access to effective teachers for all students, particularly those in low-income and low performing schools (Alliance for Excellence in Education, 2015; U.S. Department of Education, 2015c). The Department of Education will support the development of effective teachers through proposed teacher preparation programs as well as through professional development funds for states and districts that provide professional development activities that support teacher and leader effectiveness (Alliance for Excellence in Education, 2015; U.S. Department of Education, 2015c). Districts and schools must align their professional development to the needs of their staff to meet the demands of ESSA and to successfully implement challenging academic standards such as the Common Core.

**Common Core: An Opposing Point of View**

In understanding the importance of principal leadership for Common Core implementation, it is essential that principals have an understanding of the criticisms and opposition that have been associated with the CCSS, and the impact these may have on
buy-in and implementation. As states across the country continue their implementation of CCSS criticisms have frequently been linked to the implementation process, assessments, professional development, funding, and teacher evaluation (Lavenia, Cohen-Vogel & Lang, 2015; Strauss, 2014). Although 44 states have adopted and continue their implementation of the CCSS, eight states have either not adopted the standards or have withdrawn their adoption of the Common Core. In 2014 Oklahoma and South Carolina joined Indiana in passing legislation to discontinue the Common Core rooted in a belief that the federal government had overstepped its role in the design and implementation of the CCSS (Harkness, 2014; Lavenia et al., 2015; Strauss, 2014). Opposition to and concerns about the Common Core crosses political parties and comes from a variety of sources including teachers, administrators and the general public (McGuinn, 2015; Pense, Freeburg & Clemons, 2015)

**Common Core: State Led or Federal Coercion?**

The Common Core State Standards Initiative was presented as a state led movement. However, criticism continues over the role of the federal government in public education (DeNisco, 2016; Hardy, 2013; Hess, 2014) and criticism of the Obama administration for using federal dollars to entice states to quickly adopt the CCSS as part of the *Race to the Top* program (Hardy, 2013; Hess, 2014; Lavenia et al., 2015; Pense et al., 2015). The Obama administration introduced the *Race to the Top* (RTTT) initiative under the American Recovery and Reinvestment Act of 2009 (American Recovery & Reinvestment Act, 2009; Crowe, 2011; Hess, 2014). RTTT awarded $4.35 billion dollars in incentive grants to states for advancing educational reform by, “Adopting standards
and assessments that prepare students to succeed in college and the workplace and to compete in the global economy” (U.S. Department of Education: Race to the Top Fund: Program Description, 2016). Critics share a view that the Common Core was thrust upon the American public when states competed for RTTT dollars as a means of funding educational reform. According to these critics, what started as a stated-based initiative ultimately resulted in a perspective of federal coercion as the feds garnered support for the Common Core through the RTTT competition for federal funds (Hardy, 2013; Hess, 2014; Lavenia et al., 2015; Pense et al., 2015).

**Who Created the Common Core?**

In addition to criticism of the federal government for overreaching in the implementation of the Common Core, opponents of the Common Core cite concerns about the authorship of these standards. Specifically, opponents of the Common Core raise concerns about the lack of teacher representation in the development of the CCSS (Karp, 2014; Pense et al., 2015; Ravitch, 2014). Despite the claim that, “The Common Core drafting process relied on teachers and standards experts from across the country” (Common Core State Standards Initiative: Myths versus facts, 2015, para. 24) some opponents of the Common Core believe that the standards were drafted behind closed doors primarily by individuals connected to the testing industry without teacher representation (Karp, 2014; Ravitch, 2014; Schneider, 2015). Mercedes Schneider posted the names and backgrounds of the 24 individuals who participated in the development work groups for the Common Core Standards. This list provided evidence regarding the limited teaching background of participants. According to Schneider, in both the math
and ELA work groups a greater number of participants had links to testing agencies as compared to those with teaching backgrounds. The review panels were similar in make up with limited input by teachers and virtually no input by parents (Karp, 2014).

**Implementation, Funding and Testing Concerns and Challenges**

According to Henderson, Peterson and West (2016), findings from a 2014 EdNext survey revealed that public support for the Common Core Standards dropped significantly from 2013 to 2104. The survey demonstrates that although the majority of the public continued to support the Common Core standards data confirmed a loss of support with only 53% of respondents showing support of the CCSS in 2014 as compared to 65% in 2013. Common Core backing by Republicans decreased significantly during this time period, dropping from 57% in 2013 to 43% in 2014, while support by Democrats remained stable at approximately 63%.

In an effort to understanding increasing opposition during the implementation phase of Common Core, Jochim and Lavery (2015) examined a range of issues not fully addressed during the adoption phase of the CCSS. These researchers found that state policies related to the implementation of the standards created difficulties associated with funding to support professional development for teachers, curriculum, tests, technology and other instructional supports. In addition, changes to state accountability systems and the linking of test scores to teacher and administrator evaluation, led to increased concerns pertaining to the Common Core (Jochim & Lavery, 2015).

Although the nation’s two leading teacher unions, The American Federation of teachers and the National Education Association have primarily demonstrated support for
the Common Core, increased criticism of the standards has led to increased apprehension for union members (NEA, 2014; Russo, 2015; Washington Post Editorial Board, 2014).

According to NEA President Dennis Van Roekel:

Seven of ten teachers believe that implementation of the standards is going poorly in their schools. Worse yet, teachers report that there has been little to no attempt to allow educators to share what’s needed to get CCSS implementation right. In fact, two-thirds of all teachers, report that they have not even been asked how to implement these new standards in their classrooms. (NEA, 2014)

Members from both unions are calling for changes to Common Core including funding for appropriate resources, textbooks and materials as well as aligned curriculum, professional development and assessments. In addition, both unions are calling for a moratorium on the use of assessments for teacher accountability (NEA, 2014; Russo, 2015).

Implementation of the Common Core continues to pose many challenges to teachers, administrators, parents and students (Karp, 2014; Pense et al., 2015; Rentner & Center on Education Policy, 2013; Russo, 2015). Challenges include implementation of CCSS tests developed primarily by two multistate consortia funded by the federal government, an over emphasis on testing, the adoption of test-based teacher evaluation, selection of curriculum and materials, poor funding and a lack of resources across many states (Karp, 2014; Pense et al., 2015; Russo, 2015). The Center on Education Policy, a nonpartisan research group, administered a survey to deputy superintendents or their designees to learn about the progress and challenges of Common Core implementation
during the third year of implementation. Forty states responded to the survey with 39 representing states implementing both the ELA and math standards with one state that had adopted only ELA standards. Results of this survey indicated a need for revised curricular materials to support Common Core implementation as well as necessary changes for instruction in both math and language arts. Funding, according to survey results, remains a significant area of concerns with eleven states indicating that funding had remained unchanged and nine states identifying cuts in educational funding from the previous school year (Rentner & Center on Education Policy, 2013).

Several significant challenges facing states as they implement Common Core were evident based on the survey results. Thirty-four states identified funding resources for CCSS implementation as a major or minor challenge and 32 states shared the development of an educator evaluation system linked to student mastery as an ongoing challenge. Identifying or developing curriculum materials posed a challenge to 26 of the states surveyed (Rentner & Center on Education Policy, 2013).

In general, many teachers have felt unsupported in their implementation of Common Core. A lack of aligned resources has forced teachers to locate or develop their own curriculum materials (Rentner & Center on Education Policy, 2013; Sapers, 2015). The Center on Education Policy (CEP) reported that following the second year of implementation, teachers in two-thirds of districts in Common Core states had developed or were in the process of developing their own math curricular materials. Results were similar for curricular materials in English Language Arts (Kober & Rentner, 2012). According to the CEP, this remains a high level concern for many teachers.
The high cost of Common Core implementation has proven to be another source of concern for many school districts (Kober & Rentner, 2012; Murphy & Regenstein, 2015; Pioneer Institute, 2012). According to research conducted by the Pioneer Institute in 2012, significant costs are associated with implementing Common Core particularly in the areas of assessment, professional development, instructional materials and technology. Researchers found that costs include one-time costs, year one operational costs as well as ongoing annual operational costs. Table 1 demonstrates what researchers identified as middle of the road costs for mandatory expense.

Table 1

*Overview of Projected Costs Associated with Common Core Implementation*

<table>
<thead>
<tr>
<th></th>
<th>One-Time Costs</th>
<th>Year 1 Operational Costs</th>
<th>Ongoing Operational Costs</th>
<th>Total Operational Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Testing</strong></td>
<td>$0</td>
<td>$177,234,471</td>
<td>$177,234,471</td>
<td>$1,240,641,297</td>
</tr>
<tr>
<td><strong>Professional Development</strong></td>
<td>$5,257,492,417</td>
<td>$0</td>
<td>$0</td>
<td>$5,257,492,417</td>
</tr>
<tr>
<td><strong>Textbooks and Materials</strong></td>
<td>$2,469,098,464</td>
<td>$0</td>
<td>$0</td>
<td>$2,469,098,464</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td>$2,796,294,147</td>
<td>$326,042,312</td>
<td>$624,258,785</td>
<td>$6,867,889,169</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$10,522,885,028</td>
<td>$503,276,783</td>
<td>$801,493,256</td>
<td>$15,835,121,347</td>
</tr>
</tbody>
</table>


In estimating expenditures for Common Core implementation, the Fordham Institute collected data from a variety of sources to ascertain costs for developing instructional materials, administering, scoring and reporting on new assessments and providing professional development to school staff. Key findings from this research showed that costs will vary based on the approach to implementation including a bare
bones approach, traditional approach or a balance of these two approaches (Murphy &
Regenstein, 2015).

Implementing new assessments aligned to the Common Core was identified as a challenge for 92% of districts implementing the CCSS (Rentner & Kober, 2014). The 2015 PDK/Gallup poll is a nationally representative survey of 3,499 Americans, ages 18 and older with Internet access and also included a telephone survey of 1,001 Americans. Results from these surveys clearly indicate that Americans feel there is too much testing taking place in our nation’s schools with 64% of those polled sharing that there is too great an emphasis on testing. In the spring of 2015 many states administered assessments earlier than in the previous school year. Those participating in the PARCC assessment were required to administer assessments at two separate points in the spring, with some tests beginning just six weeks into the second semester. The length of the new tests requires schools to schedule approximately 10 hours of testing for elementary students (Gewertz, 2015a). In addition to these concerns, a majority of Americans also oppose the use of student test scores as part of the teacher evaluation process (Phi Delta Kappa International, 2015).

Using computer-based assessments has posed additional challenges for many schools. Use of computer-based assessments, developed by the leading testing consortia PARCC and Smarter Balanced, has resulted in struggles with technological infrastructure linked to inadequate bandwidth, lack of internet access, and computers with sufficient processing speed to support these assessments (Rentner & Kober, 2014). In addition to technology related issues, students have struggled with computer-based assessments due
to a lack of keyboarding skills, leading to what some refer to as excessive test preparation by increasing keyboarding instruction prior to the tests (Gewertz, 2015b).

Principals play a pivotal role in the successful implementation of any school reform effort, including implementation of the Common Core. Principals are responsible for making decisions and providing leadership for improvement by (1) Shaping a vision of academic success for all students, (2) Creating a climate hospitable to education, (3) Cultivating leadership in others, (4) Improving instruction, and (5) Managing people, data and processes to foster school improvement (Harvey et al., 2013). Without the leadership of principals, implementation of educational reform is unlikely to be successful or sustained (Fullan, 2001; Fullan, 2014). Research supports the important role the principal plays in a systems approach to reform, serving as agents of change (Harvey et al., 2013). Responding to the many challenges of Common Core implementation will require principals to lead in a manner that empowers teachers to learn and lead alongside the principal, sharing in the responsibilities for improved teaching and learning.

Kentucky has been identified as a leading state regarding Common Core implementation and was the first state to adopt the CCSS. This research will examine the specific leadership behaviors of elementary school principals in Kentucky that have created positive conditions for change during the implementation of the Common Core, through the development of professional capital. Understanding the behaviors of principals that supported the development of human, social and decision making capital will allow districts and schools to improve teacher effectiveness through a systemic approach to reform.
Educational Reform in Kentucky Prior to Common Core

To truly appreciate the impact Common Core adoption and implementation have had on Kentucky’s education system one must first gain a historical perspective of educational reform in Kentucky. In 1989 the landmark case, Rose v. Council for Better Education set in motion reform that continues to impact Kentucky’s current educational system (Collins, 2015; Prichard Committee for Academic Excellence, 1999; Weston & Sexton, 2009). The Rose decision provided evidence that Kentucky’s entire educational system was unconstitutional (Collins, 1991; Collins, 2015; Partnership for Kentucky School Reform, 1996) based on section 183 of the Kentucky Constitution, which states that, “The General Assembly shall, by appropriate legislation, provide for an efficient system of common schools throughout the State” (Kentucky Constitution, 1891). The Rose decision and the resulting legislation that overhauled Kentucky’s educational system in the late twentieth century, followed decades of poor school performance by students and low levels of state funding for education, particularly in poor and rural communities (Dawahare, 2004; Day, 2003; Partnership for Kentucky School Reform, 1996).

One Step Forward, One Step Backwards in Funding Kentucky Schools

Throughout the twentieth century efforts to fund Kentucky’s public schools were inadequate and inconsistent, at times referred to as a “one step up, two steps back” proposition (Dawahare, 2004, p. 34). Inequities in school funding for Kentucky’s students were rooted in systematic problems often related to politics, economics, geography and laws pertaining to taxation (Dawahare, 2004; Day, 2003; Day & Ewalt,
Disparity existed amongst Kentucky’s schools in numerous areas including funding, teacher quality and time spent in school. For example, many of Kentucky’s rural schools, particularly those in the Appalachian region, found it difficult to attract and retain high quality teachers (Day & Ewalt, 2013).

Based on the 1890 state constitution Kentucky had distributed educational funds on a per pupil basis (Dawahare, 2004; Day & Ewalt, 2013; Hunter, 1999). Equalization programs were enacted throughout the 1940s and 1950s that allowed the state to provide a designated percent of state funding to districts with inferior educational opportunities (Dawahare, 2004; Day, 2003; Rose v. Council for Better Education, 1989). A new funding formula was developed in 1954 after the General Assembly passed the Minimum Foundation Program (MFP). The MFP was developed as a means of providing adequate state funding for education with an opportunity for school districts to collect additional tax dollars at the local level (Dawahare, 2014; Day, 2003; Day & Ewalt, 2013). Although well intentioned the Minimum Foundation Program did not serve as an equalizer in terms of school funding, for a number of reasons including the fact that property values were often assessed lower that the fair market value. The MFP provided little relief to poorer districts because it offered no incentive to raise local taxes or improve the process of assessing property values (Hunter, 1999).

Kentucky continued to work in the “one step up, one step back” mode perpetuating a school system wrought with inequities. In 1965 assessed property values averaged twenty-seven percent of their actual fair cash value. The 1965 Russman v.
Luckett case had the potential to remedy this situation when the Kentucky Court of Appeals mandated that the State’s Revenue Cabinet assess all property at one hundred percent of its fair market value (Dawahare, 2004; Day & Ewalt, 2013; Weston & Sexton, 2009). However, disparity continued to exist related to school funding when just one year later the General Assembly passed House Bill 1, reducing tax rates on property by altering the tax structure to ensure that property owners would ultimately not pay more taxes (Day & Ewalt, 2013; Hunter, 1999).

Seeking to equalize school funding Governor James Carroll created the Power Equalization Program (PEP) to support the existing Minimum Foundation Program (MFP). PEP allowed for the distribution of state funds using a formula based on the fiscal capacity of the district thereby increasing state aid to underfunded districts. Unfortunately, PEP and MFP had only a modest impact on the equalization of school funding. This situation was compounded when permanent limits on tax increases were enacted by the lieutenant governor in 1979, making it virtually impossible for underfunded schools to close the gap with those that received higher levels of funding (Day & Ewalt, 2013; Weston & Sexton, 2009).

This type of back and forth legislation continued, leading not only to disparity amongst school districts in Kentucky but it also perpetuated an inefficient school system marked by high dropout rates, poor educational performance, low levels of per-pupil expenditures, high pupil to teacher ratios, and low average annual salaries for staff (Clark, 2003; Day, 2003; Day & Ewalt, 2013; Weston & Sexton, 2009; Wright, 2013). These conditions set the stage for an overhaul of Kentucky’s educational system, which
was initiated through litigation in the *Rose* case, supported by the newly formed Prichard Committee for Educational Excellence (Day, 2003; Day & Ewalt, 2013; Partnership for Kentucky School Reform, 1990; Prichard Committee for Academic Excellence, 1999).

In the opinion for *Rose v. Council for Better Education*, Chief Justice Stephens summarized the political ups and downs of school funding in Kentucky when he wrote:

> If one were to summarize the history of school funding in Kentucky, one might well say that every forward step taken to provide funds to local districts and to equalize money spent for the poor districts has been countered by one backward step. It is certainly true that the General Assembly, over the years, has made substantial efforts to infuse money into the system to improve and equalize the educational efforts in the common schools of Kentucky. What we must decide, based solely on the evidence in the record as tested by the Kentucky Constitution, Section 183, is whether the trial court was correct in declaring that those efforts have failed to create an efficient system of common schools in this Commonwealth. (*Rose v. Council for Better Education*, 1989, p. 8)

**Rose v. Council for Better Education**

Disparities in state funding were one of the significant factors that continuously placed Kentucky at the bottom of educational rankings in the mid-1980s. Kentucky was forty-third in the nation for per-pupil expenditures, forty-seventh in per capita spending, thirty-eighth for teacher salaries, forty-second in high school graduation and forty-ninth in the nation for adults with a college degree. Kentucky was also fiftieth in the nation in regards to adults with a high school degree (Dawahare, 2004; Day & Ewalt, 2013;
Prior to the Rose decision, Kentucky ranked among the highest states for unemployment and for the number of children living in poverty (Hunter, 1999). Inequality of educational opportunity continued to exist within Kentucky’s 178 school districts impacting class size, facilities, supplies and resources as well as opportunity for programming such as classes in art, music and science. Test scores in schools with fewer resources were substantially lower than those with adequate funding and resources (Alexander, Brock, Forgy, Melton, & Watson, 1989; Dawahare, 2004).

The political climate of the mid-1980s opened the doors for change. Growing concern for the quality of education provided to students throughout the state of Kentucky resulted in the creation of advocacy groups such as the Prichard Committee and the Committee for Better Education. With a mission to promote an improved school system and build public support for significant school reform legislation, a grassroots educational reform movement was initiated when the Prichard Committee held simultaneous town forums in 145 cities educating the public on the inadequacies of Kentucky’s school system (Dawahare, 2004; Hunter, 1999; Prichard Committee for Academic Excellence, 1999).

Concerns brought forth by these groups and others ultimately led to the landmark education case, Rose v. The Council for Better Education. The Rose case brought forth evidence that the educational system of Kentucky violated the constitution by providing an inefficient school system (Collins, 2015; Hunter, 1999; Rose v. Council for Better Education, 1989; Wright, 2013).
The Council for Better Education was initially comprised of 66 rural and property poor school districts seeking appropriate and equitable funding for their schools. The Council was later joined by the parents of 22 school children in bringing a lawsuit that argued that Kentucky’s school funding system was in violation Section 183 of the state constitution, which states that the “General Assembly shall, by appropriate legislation, provide for an efficient system of common schools throughout the State.” The defendants named in the complaint were the Governor, the Superintendent of Public Instruction, the State Treasurer, the President Pro Tempore of the Senate, the Speaker of the House of Representatives and the State Board of Education as well as its individual members (Collins, 2015; Dawahare, 2004; Day, 2003; Hunter, 1999; Kentucky Constitution, 1891; Weston & Sexton, 2009).

Following a trial at the Franklin County Circuit Court, where the court ruled that Kentucky’s system for funding schools did not meet the requirement of providing a system of efficient schools, the defendants appealed to the Kentucky Supreme Court (Collins, 2015; Day 2003; Weston & Sexton, 2009; Wright, 2013). The Council continued to receive support from the Prichard Committee, with members of the Committee testifying during the trial. The Prichard Committee was also credited with creating support through public awareness using the media and other sources to gain support (Hunter, 1999). By the time the appeal reached the Supreme Court support for educational reform had gained momentum throughout the state as demonstrated by a 1989 poll where the proportion of taxpayers willing to fund improved schools through
increased taxes had grown from 49% in 1983 to 67% (Hunter, 1999; Prichard Committee for Academic Excellence, 1999).

The Kentucky Supreme Court agreed with the Circuit Court that the system for funding Kentucky’s schools violated the requirement for an efficient system of schools as stipulated in the Kentucky Constitution. The court went on to state that:

Lest there be any doubt, the result of our decision is that Kentucky’s entire system of common schools is unconstitutional. There is no allegation that only part of the common school system is invalid, and we find no such circumstance. This decision applies to the entire sweep of the system--all its parts and parcels. This decision applies to the statutes creating, implementing and financing the system and to all regulations, etc., pertaining thereto. This decision covers the creation of local school districts, school boards, and the Kentucky Department of Education to the Minimum Foundation Program and Power Equalization Program. It covers school construction and maintenance, teacher certification--the whole gamut of the common school system in Kentucky. (Rose v. Council for Better Education, 1989)

In its opinion, the court identified nine characteristics of an efficient system of common schools. These characteristics include: (1) The General Assembly is responsible for the establishment, maintenance and funding of common schools in Kentucky, (2) Common schools are free to all, (3) Common schools are available to all children in Kentucky, (4) Common schools will be uniform throughout the state, (5) Common schools provide equal educational opportunities to all children, regardless of the student’s
economic circumstances or residence, (6) The General Assembly will monitor all Common schools to assure that they operate without waste, duplication, mismanagement, and are not politically influenced, (7) The reason common schools exist is to provide all children in Kentucky with their constitutional right to an adequate education, (8) The General Assembly will provide sufficient funding to ensure that each child in Kentucky receives an adequate education, and (9) An adequate education in Kentucky will provide children with the seven capacities listed below:

- Sufficient oral and written communication skills to enable students to function in a complex and rapidly changing civilization
- Sufficient knowledge of economic, social, and political systems to enable the student to make informed choices
- Sufficient understanding of governmental processes to enable the student to understand the issues that affect his or her community, state, and nation
- Sufficient self-knowledge and knowledge of his or her mental and physical wellness
- Sufficient grounding in the arts to enable each student to appreciate his or her cultural and historical heritage
- Sufficient training or preparation for advanced training in either academic or vocational fields so as to enable each child to choose and pursue life work intelligently
- Sufficient levels of academic or vocational skills to enable public school students to compete favorably with their counterparts in surrounding states, in
academics or in the job market. *(Rose v. Committee for Better Education, 1989)*

**The Kentucky Education Reform Act**

The Rose decision resulted in sweeping educational reform across the state of Kentucky as well as an overhauling of the school finance system (Day & Ewalt, 2013). Less than a year after the courts found the Kentucky common school system unconstitutional, the General Assembly passed House Bill 940 in 1990, otherwise known as the Kentucky Education Reform Act (KERA) (Collins, 2015; Dawahare, 2004; Hunter, 1999; Wright, 2013). KERA was described as “the nation’s most comprehensive school reform legislation” (Nystrand, 1993, p. 31).

The Kentucky Education Reform Act led to systematic changes in three broad areas including school finance, governance and curriculum (Clark, 2003; Collins, 2015; Hoyt, 2016; Lindle, 1992; Partnership for Kentucky School Reform, 1996). KERA looked to intertwine school finance reform with modifications pertaining to curriculum and school governance. A primary goal of KERA was to resolve the financial disparities between rich and poor school districts by mandating curricula, implementing statewide standards, evaluating school performance related to standards, and by placing restrictions on district employment and compensation (Clark, 2003; Dawahare, 2004; Hoyt, 2016; Partnership for Kentucky School Reform, 1996; Prichard Committee for Academic Excellence, 2013).

Systematic changes to curriculum were supported not only with increased accountability and assessments but also through other programs and services. These
included: (a) improved professional development programs, (b) the creation of preschool and primary programs to provide all students with foundational skills necessary for success in school, (c) a plan for implementing technology into the school system with additional funding for implementation, and (d) services to support students and families to improve learning conditions (Borko, Elliott & Uchiyama, 1999; Hoyt, 2016; Partnership for Kentucky School Reform, 1996; Weston & Sexton, 2009). Each of these supported changes concerning teaching and learning in classrooms throughout the state of Kentucky.

Changes in school governance came at the state and local levels. A new State Board for Elementary and Secondary Education (called the Kentucky Board of Education) was appointed and selected a new commissioner to replace the elected superintendent of schools, who in turn organized the new department of education (Hoyt, 2016; Weston & Sexton, 2009). Local changes in school governance came primarily through the requirement of school-based decision making for all schools (Lindle, 1992; Partnership for Kentucky School Reform, 1996). Decentralization resulted from the implementation of school councils that were comprised of the school’s principal, three teachers, and two parents. The school’s faculty elected teacher representatives and parent representatives were elected by parent organizations. School councils adopted policies and made decisions regarding curriculum, curricular materials, instruction, discipline, and the school budget. These councils also assisted in the hiring of school principals and consulted on the hiring of staff (Dawahare, 2004; Hoyt, 2016; Lindle, 1992; Partnership for Kentucky School Reform, 1996).
School finance was the third area of broad change and resulted in equitable and increased school funding. A new equalization formula was created through a program called the Support Educational Excellence in Kentucky (SEEK), which guaranteed a minimum amount of spending per pupil throughout the state (Dawahare, 2004; Hoyt, 2016; Partnership for Kentucky School Reform, 1996; Weston & Sexton, 2009). The minimum was increased for at risk students, transportation and exceptional students (Hoyt, 2016).

Through KERA school districts shared in efforts to reform school financing and were required to collect taxes equivalent to $.30 per $100 of taxable property. The state was committed to providing additional funding to ensure the base amount per pupil was met. Under SEEK school districts also had the option of setting a higher tax rate for additional funding (Hoyt, 2016; Weston & Sexton, 2009). Financial reform efforts such as those required by SEEK resulted in immediate increases in equitable funding for school districts throughout the state of Kentucky (Partnership for Kentucky School Reform, 1996; Weston & Sexton, 2009).

**Progress Following KERA**

The Kentucky Education Reform Act resulted in higher levels funding for education in Kentucky. SEEK funding had an immediate and positive impact on the equalization of spending across the state (Dawahare, 2004; Hoyt, 2016; Weston & Sexton, 2009). According to Weston and Sexton, per pupil funding increased 44.5% between 1990 (prior to the implementation of KERA) and 2001. Equity of funding also saw a dramatic change with less wealthy school districts receiving funding more similar
to wealthier districts. Recent years have seen setbacks pertaining to funding for textbooks, preschool, professional development and technology (Wright, 2013). However, as intended, the equity gap between property poor districts as compared to property rich districts has decreased since the passage of KERA (Day & Ewalt, 2013).

Kentucky has also made overall progress in regards to student achievement since the passage of KERA (Dawahare, 2004; Weston & Sexton, 2009), although disparity continues to exist for some subgroups (Wright, 2013). *Education Week’s* Quality Counts 2016 Achievement Index (2016) ranks Kentucky twenty-seventh in the nation based on factors related to student achievement, school finance and chance for success. Results on the National Assessment of Educational Progress (NAEP) for 2015 demonstrate mixed results with an upward trend on the scale score for fourth grade math (Kentucky students performed better than the nation) and a recent downward trend on the scores for eighth grade math, with Kentucky performing below the national average. In reading, scaled scores were above the nation for both fourth and eighth grade students and demonstrated an upward trend at both grade levels (Kentucky Department of Education, 2016).

It is clear that Kentucky students have benefitted from the requirements of KERA with reforms in the areas of school finance, school governance and improvements to curriculum as measured using statewide and national assessments (Weston & Sexton, 2009; Wright, 2013). Increased accountability was a direct result of KERA (Day, 2013). Although Kentucky is no longer at the bottom of national rankings, with an overall score of a C on *Education Week’s* Quality Counts 2016 Achievement Index (*Education Week*, 2016) Kentucky must continue to implement systemic changes in the areas of curriculum,
finance and school governance to ensure equity in education for all students and continued growth. Implementation of the Common Core State Standards may keep the goals of KERA alive.

**The Common Core in Kentucky**

In 2009 the Kentucky General Assembly mandated the Kentucky Department of Education to develop new academic standards focusing on critical knowledge, skills and capacities needed for success in a global economy. Senate Bill 1, known as the Kentucky Core Academic Standards, passed in 2009, and required the Kentucky Department of Education to work in collaboration with the Kentucky Council on Postsecondary Education to “plan and implement a comprehensive process for revising the academic content standards” (Kentucky Department of Education: Kentucky Core Academic Standards, 2014, para. 1). Seeking to meet this demand, in February 2010 Kentucky became the first state to officially adopt the Common Core State Standards in both English Language Arts and mathematics. As shared by Gewertz (2010), the chairs of three partner organizations, including the Kentucky Board of Education, the Council on Postsecondary Education, and the Educational Professional Standards Board signed an agreement in February 2010, requiring their specific agencies to implement the Kentucky Core Academic Standards in both mathematics and English Language Arts. As noted on the Kentucky Department of Education website (Kentucky Department of Education: Kentucky Core Academic Standards, 2014), the purpose of The Kentucky Core Academic Standards (KCAS) is to guarantee that all students across the commonwealth are taught to a common set of core standards with opportunities to learn at a high level.
According to a 2010 study by the Fordham Institute, the Common Core Standards emerged as a significant improvement as compared to the previous Kentucky State Standards in mathematics and English Language Arts. In an analysis of content, rigor, clarity, and specificity, Kentucky’s state standards were, “amongst the worst in the country” (Carmichael, Martino, Porter-McGee & Wilson, 2010, p. 143). The report found the Kentucky ELA standards to be vague in most areas with some degree of specificity in the area of reading and analyzing informational texts. Noted areas of strength related to content and rigor for the prior Kentucky State Standards included speaking, listening and observing skills as well as strengths in the area of grammatical knowledge. However, significant weaknesses were noted in regards to reading skills including phonemic awareness, phonics, fluency and comprehension, research and literature. Kentucky’s ELA standards received a grade of D as compared to the B+ received by the Common Core ELA standards (Carmichael et al., 2010), demonstrating a need for significant change to the existing state standards.

Organized into five content strands the Kentucky mathematics standards fared no better than the ELA standards as evaluated against the Common Core. The math standards were found to lack in the areas of clarity, specificity, content and rigor. With an excessive number of math standards, the previous Kentucky state standards were found to be unorganized and difficult to read therefore providing a lack of focus and clarity for teachers and students. Although the Kentucky standards did contain some rigorous expectations, a lack of focus on arithmetic was identified as a serious shortcoming. Kentucky’s mathematics standards also received a grade of D as compared to an A-
earned by the new Common Core mathematics standards. These results provided clear evidence that a new set of common standards was needed in the state of Kentucky.

The Kentucky Department of Education developed a clear and organized path to guide the implementation of the Kentucky Core Academic Standards, which was facilitated by nine regional content leadership networks (Holliday & Smith, 2012; Watt, 2011). The Kentucky Core Academic Standards are fully aligned to the Common Core and according to Holliday and Smith (2012), Leadership Networks and the Continuous Instructional Improvement Technology System (CIITS) represent critical components of Kentucky’s plan for implementation of the Kentucky Core Academic Standards.

Leadership Networks, led by a team of facilitators including administrators, consultants, and faculty from colleges and universities shared in the responsibility of developing and providing professional learning opportunities for teachers and administrators, which were essential to the systematic implementation of the revised standards. The purpose of the Networks is to:

- Provide equal representation to all school districts (i.e., a ‘senate’ model) to contribute to setting the statewide expectations for and implementation of new standards and assessments
- Build capacity at the district level to understand Kentucky’s Core Academic Standards and their implications for instruction and assessment
- Create a professional learning community of content and administrator leaders
• Build the capacity of every member to identify and implement highly effective teaching, learning and assessment practices around Kentucky’s Core Academic Standards

• Provide the leadership skills, tools, resources necessary for all members to:
  o break down or deconstruct standards into clear learning targets
  o design/recognize high-quality formative and summative assessments
  o Plan/identify rigorous and congruent learning experiences for instruction
  o Select evidence-based strategies and resources to enhance instruction.

(Kentucky Department of Education: Leadership Networks, 2015)

The Continuous Instructional Improvement Technology System (CIITS) is a technology-based platform that since 2011 has paved the way for collaboration across the state and has supported teachers in the transition to new standards. As shared on the Kentucky Department of Education Website, “The Continuous Instructional Improvement Technology System, or CIITS, is a multi-phase, multi-year project designed to provide Kentucky public school educators with the 21st-century resources they need to carry out highly-effective teaching and learning in every classroom in Kentucky” (Kentucky Department of Education: CIITS Overview, 2015, para. 1)

Teachers can share lesson plans, assessments and resources aligned to the Common Core Standards. This system has allowed educators to access lessons and materials directly linked to standards and as the system progresses educators will have increased access to an item bank that may be used to develop formative assessments. This tool will continue to provide additional opportunities for teachers to monitor the progress of students as
they work towards the mastery of various standards (Kentucky Department of Education: Kentucky Academic Standards 2014). In addition, a Core Advisory Team has been put in place to support the mission of a Leadership Network to oversee the entire implementation process (Watt, 2011).

In Kentucky, Senate Bill 1 (2009) outlined changes for a new teacher evaluation system, and was first implemented during the 2015-2016 school year. The new evaluation system, called the Professional Growth and Effectiveness System (PGES), supports the Kentucky Board of Education’s vision to have every student taught by an effective teacher. The new evaluation process includes multiple measures based on data collected throughout the school year. These measures include: student growth, observations, peer observations, self-reflection and professional growth, and a student voice survey (Kentucky Department of Education: Professional Growth and Effectiveness System FAQ, 2015).

Kentucky sought funding for their Common Core implementation from the federal government, through Obama’s Race to the Top (RTTT) initiative, which granted over four billion dollars to states to support educational reform. Kentucky was a finalist twice but the state was unsuccessful in obtaining funding from RTTT during the first two phases. However, in December 2011, Kentucky was awarded $17 million, which was substantially less than the requested $175 million (Day & Ewalt, 2013, p. 269). Kentucky also received a grant of $17.5 million in funding from the Gates Foundation (Porter, 2015). These grants were used in conjunction with state dollars to fund reforms associated with adoption of the Commons Core State Standards.
Accountability and Assessment

Accountability and assessment, as required by Senate Bill 1, are critical in monitoring the ongoing success of Kentucky’s Core Academic Standards. Specified accountability measures allow teachers, administrators and the broader community to determine the impact these new standards have had on student learning and the development of students who are college and career ready. Kentucky's Unbridled Learning Accountability Model was designed to provide a balanced approach to determining school success and includes numerous measures that examine the effectiveness of schools. The new model measures and categorizes school performance based on student achievement in the five content areas, student-growth, achievement in regards to the gap among student subgroups, high school graduation rates and college- and career-readiness (Kentucky Department of Education: Accountability, 2014).

The Unbridled Learning Accountability Model is organized around the Kentucky Board of Education’s four strategic priorities which are: next-generation learners, next-generation professionals, next-generation support systems and next-generation schools/districts.

Three components comprise the Unbridled Learning Accountability Model and include:

- Next-Generation Learners, which measures performance in the areas of achievement, gap, growth, college/career readiness and graduation rate. Scores are based on measures of student performance on various tests. Points are awarded based on how well a school performs on each measure.
• Next-Generation Instructional Programs and Support and includes a review of the Arts and Humanities, Practical Living/Careers and Writing as well as World Languages.

• Next-Generation Professionals refers to the Professional Growth and Effectiveness System (PGES) for teachers and school leaders. (Kentucky Department of Education: Accountability, 2014)

Points from each component are tallied and schools receive a weighted score based on a total of 100 possible points. Continuous improvement is encouraged through annual goal setting. Based on these scores all districts and schools are ranked in order from highest to lowest. Based on this ranking schools and districts will fall into one of three main classifications (within their specified school level: elementary, middle or high school):

• Distinguished – the top 10 percent of districts or schools from a particular level

• Proficient – in the top 30 percent of districts or schools from a particular level

• Needs Improvement – schools/districts falling outside of the Proficient or Distinguished categories and not meeting their AMOs. (Kentucky Department of Education: A Parent’s Guide to School Accountability in Kentucky, 2012)

**Kentucky Performance Rating for Educational Progress**

Kentucky’s Senate Bill 1 (2009) mandated not only the adoption of more rigorous standards but the adoption of more rigorous assessments as well. The Department of Education adopted new assessments aligned to the revised standards. The assessments,
collectively known as the Kentucky Performance Rating for Educational Progress or K-PREP, are administered to students in third through twelfth grades, and include the End of Course assessments given to high school students.

Although initially a member of the PARCC (Partnership for Assessment of Readiness for College and Careers) consortium, Kentucky is one of 27 states that used their own assessment to monitor student growth and achievement during the 2016-2017 school year. Fifteen states used the Smarter Balanced assessment and nine states were part of the PARCC consortium (Gewertz, 2017). Kentucky elected to hire a vendor to develop its state assessment, prior to its 2012 implementation. However, Commissioner Holiday looked to access the consortia item banks as allowed by the provisions under the RTTT program (Gewertz, 2014), as part of the test development process. NCS Pearson was contracted to develop the K-PREP and used a blended model of norm referenced and criterion referenced test items. According to the Kentucky Department of Education website (Assessment and Accountability, 2016), NCS Pearson is a vendor that has provided large-scale assessment services in more than 25 states and for the U.S. Department of Education. The norm-referenced items are nationally normed while the criterion-referenced items are unique to Kentucky. The K-PREP, which consists of multiple-choice, extended-response and short answer items, was first administered during the 2011-2012 school year, prior to the development of PARCC or Smarter Balanced assessments (Kentucky Department of Education: Assessments and Accountability, 2016). In January 2014, Kentucky officially withdrew from the PARCC consortium.
The Kentucky Department of Education used a third-party research firm to provide evidence necessary to assess the validity of the current statewide testing program, including the K-PREP. As stated on the Kentucky Department of Education website:

The Department of Education conducts ongoing research on Kentucky’s statewide testing programs. Activities include establishing the validity of the assessment and accountability program. Studies include consistency of student results across multiple measures, the congruence of school scores with documented improvements in instructional practice and the school learning environment, and the potential for all scores to yield fair, consistent, and accurate student performance level and school accountability decisions. (Kentucky Department of Education: Statewide Testing Program Research Reports, 2016)

Human Resources Research Organization (HumRRO) served as the third-party research firm providing information directly related to the K-PREP as well as other assessments. Kentucky’s accountability system is designed to ensure all students leave high school prepared for college and careers. Therefore, the first area reviewed by HumRRO looked at the correspondence between End of Course (EOC) assessments at the high school level and cut scores for the K-PREP administered to third-eighth grade students (in the areas of reading and math). According to HumRRO linking cut scores for the K-PREP and the EOCs supports a consistent system of measuring progress as students move between grade levels (Thacker, Dickenson & Sinclair, 2013). Additional research looked at the equated/scaled raw score to scale score tables for the 2012 K-PREP. Pearson and HumRRO independently calculated these scores and yielded
identical results. Based on this research HumRRO determined that Pearson did not commit processing errors, supporting the validity of test scores (Bynum & Thacker, 2013). In assessing the reliability of the K-PREP, Dickinson, Levinson, Thacker, and Hoffman (2013) looked at the classification accuracy of students based on classifications at four proficiency levels. These levels include: novice, apprentice, proficient and distinguished. Data from the 2012 K-PREP demonstrated that students in Kentucky were classified at a similar rate as compared to students in other states supporting the reliability of the K-PREP. Research conducted by Human Resources Research Organization supports the reliability and validity of the K-PREP assessment.

Initial results from the K-PREP received mixed reviews. Results from the 2013-2104 assessments revealed an overall increase in student proficiency for both reading and mathematics. The Kentucky Department of Education’s 2014 School Report Card demonstrates that students across the state are making progress, as measured with the common core aligned K-PREP assessment (Kentucky Department of Education: School Report Card, 2014). In the third year of testing with the K-PREP, the percentage of students demonstrating proficiency increased at all levels with the exception of high school reading. According to the 2016-2017 state report card, data in the area of reading has somewhat flat lined for both elementary and high school students, while middle school students have demonstrated steady growth. In the area of mathematics, elementary school students have demonstrated continued growth with a slight dip from 2016, where 51.8% of students demonstrated proficiency, to 2017 where only 49.1% of students demonstrated proficiency. According to the state report card, middle school students
continue to demonstrate an upward trend in data for math, while high school students have flat lined in a manner similar to reading data (Kentucky Department of Education: State Report Card, 2017). Kentucky saw a high school graduation rate of 87% in 2014, which was a 12% increase as compared to the graduation rate prior to implementation of the Common Core (Porter, 2015). In 2017 the graduation rate was 89.7%, demonstrating continued growth on this measure of student success (Kentucky Department of Education: State Report Card, 2017).

College and career readiness are central to the mission of the Common Core State Standards. Kentucky has seen significant growth in these areas since the 2011 implementation of the Kentucky Core Academic Standards. The percentage of high school graduates meeting the college and career readiness expectations increased from 54.1% in 2013 to 62.3% in 2014 (Kentucky Department of Education: Accountability, 2014; Porter, 2015). Data pertaining to college and career readiness has continued to show an upward trend with the most recent data demonstrating that 65.1% of high school graduates met or exceeded expectations for these standards in 2017 (Kentucky Department of Education: State Report Card, 2017). In an effort to determine the impact implementation of the CCSS has had on college readiness researchers Xu and Kennan (2015) examined student ACT scores from three cohort groups of Kentucky students. The three groups included: students who took the ACT prior to the implementation of Common Core in the 2010-2011 school year; students who took the ACT during the 2011-2012 school year which was one year after the implementation of CCSS began; and the third group who took the ACT in the 2012-2013 school year having had two years of
instruction aligned to the Common Core. Kentucky requires all eleventh grade students to take the ACT, which is used to evaluate students’ college-level proficiency and is commonly used as part of the college admissions process. Although the authors recognize that students in this study had been taught under previous state standards for the majority of their education results of this study did demonstrate that students exposed to the new standards made faster progress than those who were not exposed to these same standards.

Overall data for students in Kentucky demonstrates positive or stable trends in regards to graduation rates, performance on the ACT, college and career readiness and student achievement. In 2014 the Kentucky Department of Education and Commissioner Holliday initiated the “Kentucky Academic Standards Challenge” inviting feedback from parents, teachers and the community at large pertaining to the mathematics and English Language Arts standards (Gewertz, 2014; Kentucky Department of Education 2014 news release). Of the nearly 4,000 people who took part in the challenge, 88% gave a “thumbs up” to the standards indicating that no changes were necessary. Approximately 12% identified the need for a change with the majority of recommendations focusing on the grade level at which specific standards were taught (Kentucky Department of Education, 2015). According to the KDE website teams will review the feedback and propose revisions to improve the quality of the standards to go into effect no earlier than the 2016-2017 school year. Kentucky will continue to use accountability measures and feedback to assess the standards and their impact on students.
Kentucky as a Leader in Common Core Implementation

Kentucky was not only the first state to adopt the Common Core but has also been recognized as a leading state in regards to implementation of the CCSS (Pierce, 2015). Other states have had the opportunity to learn from Kentucky’s implementation plan which has included the use of Leadership Networks aimed at providing professional development as well as resources, tools and skills necessary for providing high quality instruction. In addition, Kentucky developed the Continuous Instructional Improvement Technology System (CIITS), designed to enhance collaboration amongst Kentucky’s teachers by providing a platform for sharing lessons, resources and materials to support effective teaching and learning. Finally, a great deal can be learned about Common Core implementation by understanding Kentucky’s assessment and accountability system, called the Unbridled Learning Accountability Model. School performance is measured based on student achievement in the five content areas: student-growth, achievement in regards to the gap among student subgroups, high school graduation rates and college- and career-readiness (Kentucky Department of Education: Accountability, 2014).

A number of factors have contributed to the overall success of Kentucky’s implementation of the Common Core including communication, building teacher capacity and the high levels of support provided to teachers through the CIITS system and other mechanisms (Pierce, 2015). In addition, the legislature played a significant role if the successful implementation of the CCSS with the adoption of Senate Bill 1 (Pierce, 2015; Webster, 2014) by engaging all stakeholders including parents, teachers and students. Collaboration amongst the governor, the legislator and the department of
education has supported the implementation of the new CCSS (Larson et al., 2013; Pierce, 2015; Webster, 2014).

However, the best measures of success are the results that demonstrate improvements in teaching and learning. This has been documented through overall upward or stable trends on statewide assessments, graduation rates and positive feedback through survey results on the effectiveness of the Common Core (Kentucky Department of Education: School Report Card, 2015; Kentucky Department of Education: School Report Card, 2017). As of this writing the state of Kentucky has witnessed positive trends on state assessments and has increased in high school graduation rates, since implementing the new standards. Graduation rates are 87% for Kentucky students ahead of the national average of 75% (Porter, 2015). Furthermore, on the “Kentucky Core Academic Standards Challenge” feedback from parents, teachers and the community at large indicated that 88% of those who responded shared that no changes were necessary to the math or language arts standards (Kentucky Department of Education, 2015).

Despite these measures of success, a number of politicians in Kentucky are calling for a dismantling of the Common Core State Standards in Kentucky (Brammer, 2016; Lowry, 2016; Moore, 2016). Republican Governor Matt Bevins, elected in November 2015, has repeatedly come out against Common Core making this a primary campaign issue during the 2015 election (Cheves, 2015; Moore, 2016; Ujifusa, 2015). Bevins has repeatedly stated that the Common Core is a federal initiative. In early January 2016, state Republicans outlined their priority bills for the General Assembly. Among these was an emphasis on overhauling the educational system and the
introduction of Senate Bill 1, which seeks to repeal the Common Core Standards (Brammer, 2016; Lowry, 2016). State Education Chairman, Mike Wilson, filed Senate Bill 1 in hopes of replacing the Common Core with a state led system, which would produce college and career graduates (Brammer, 2016; Lowry, 2016).

The leadership of school principals as it relates to Common Core implementation is essential for the continued success of teachers and students. The purpose of this study is to identify leadership behaviors exhibited by elementary principals in Kentucky that have created conditions for change during the implementation of the Common Core Standards through the development of human, social and decision making capital.

**Leadership**

Principals are essential to the development of high quality, effective schools (Darling Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007; Knapp, Copland, Plecki, & Portin, 2003; Rosenholtz, 1985). Effective schools are characterized by a specific set of teacher and leader behaviors that include a focus on instruction, collaboration, professional growth, and a collective sense of responsibility for student learning (Rosenholz, 1985). Research demonstrates that high performing schools are characterized by a focus on high standards with student achievement central to all instruction as well as a clear vision articulated by the principal (Dufour & Marzano, 2011; Marzano & Waters, 2010).

The significant relationship that exists between the influences of the principal and student learning has been well documented in the research (Harvey et al., 2013; Leithwood & Jantzi, 2008; Marzano et al., 2005; Mitgang, 2012). Improving school
leadership remains a high priority as it relates to school reform. In a 2010 survey of school and district administrators, policymakers and others in the educational field, principal leadership was determined to be the second most significant factor impacting public school education only to be surpassed by teacher quality. Principal leaders rose above other critical factors including dropout rates, student testing and STEM education (Simkin, Charner, Saltares, & Suss, 2010).

According to Darling-Hammond et al. (2007), “in order for principals to impact student achievement they must commit to bringing about lasting change, support instruction, and nurture teachers so they can reach their full potential” (p. 1). Effective change, according to Fullan (2014), is a process that will allow schools to build capacity and ownership over time. Principals will need to refocus their work as they implement reforms such as the Common Core, by understanding their impact on student achievement (Achieve, 2012; Darling-Hammond et al., 2007; Fullan, 2002; Marzano, et al., 2005; Robinson et al., 2008; Waters et al., 2004), and school culture (Fullan, 2014; Hargreaves & Fullan, 2012). Reforming education through the implementation of the Common Core State Standards requires principals to bring about systematic school wide change that sets students on a path towards college and career readiness. These revised standards will cause principals to reflect on their role in leading quality change for the successful implementation of the Common Core State Standards.

Despite the fact that the ongoing revisions to the roles and responsibilities of school leaders continue to emerge in response to the changing political and economic landscape, it is clear that school principals impact the work of teachers and the
achievement of students. Research continues to demonstrate the impact principals play in the development of successful schools (Glanz et al., 2007; Marzano et al., 2005). A number of leadership models have received great attention in regards to the leadership styles of effective school principals. Leadership models that have dominated the literature include instructional leadership, distributed or shared leadership and transformational leadership (Hallinger, 2003; Robinson et al., 2008).

**Instructional Leadership**

The responsibilities and expectations of the school principal have evolved over the last century moving away from the traditional role of school manager, where implementation of rules and building operations were main areas of focus (Brookover, 1978; Vogel & Weiler, 2014). In a review of the literature, Leithwood et al. (1994) determined that the role of the principal changed dramatically during the end of the 20th century. Changes during this time period reflected an increased focus on teaching and learning, professional learning opportunities, instruction guided by analysis of data, and accountability.

Stemming from a focus on school improvement and increased accountability the notion of the principal as the instructional leader emerged in the 1980s as a way of advancing school improvement (Barth, 1986; Dwyer, 1985). Frequently, instructional leaders during this time period were identified as those who had successfully turned around low performing schools (Hallinger 1992; Neumerski, 2013). Although varied definitions of instructional leadership continue to exist common themes include the view of instructional leaders as those that facilitate a common school mission and vision
(Glassman, 1984; Leithwood, Beglery & Cousins, 1990), promote a positive school climate (Barth, 1990) and manage the instructional program (Cuban, 1984; Dwyer, 1985; Hallinger, 2003). As the role of the principal has continued to change, the concept of instructional leadership developed as a way of understanding the roles and responsibilities of principals in relationship to classroom instruction (Hallinger, 2005; Leithwood et al., 2004). The idea of the principal as an instructional leader is so significant that the National Association of Secondary School Principals states that, “Strengthening the role of the principal as instructional leader” supports their mission of promoting excellence in middle level and high school leadership (National Association of Secondary School Principals, 2015).

The importance of instructional leadership skills is well defined in the research (Hallinger, 2005; Leithwood et al., 2004; Louis & Wahlstrom, 2011). Instructional leaders are expected to lead the learning in schools, with an emphasis on teaching practices and learning activities, building capacity in teacher leaders, and creating a culture which is conducive to professional growth and student learning (Barth, 2002; Harvey et al., 2013). It is clear that building management is no longer a sufficient focus for principals to effectively lead their schools and reform student learning. School leaders must facilitate systematic change to create new ways of conducting schooling throughout the K-12 system (Reed, 2013).

Such change does not happen by itself in schools. The changing role of school administrators has been so strong that in 2008 The National Policy Board for Educational Administration adopted the revised Educational Leadership Policy Standards (Council of
Chief State School Officers, 2008; Neumerski, 2013), setting new standards for educational leaders. The ISLLC 2008 Policy Standards describe the functions of effective educational leadership and serve as a national model by which states may develop their own standards aimed at improving educational leadership. These six standards will guide the work of building level administrators and include:

- **Standard 1:** An education leader promotes the success of every student by facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by all stakeholders.
- **Standard 2:** An education leader promotes the success of every student by advocating, nurturing and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
- **Standard 3:** An education leader promotes the success of every student by ensuring management of the organization, operation, and resources for a safe, efficient, and effective learning environment.
- **Standard 4:** An education leader promotes the success of every student by collaborating with faculty and community members, responding to diverse community interests and needs, and mobilizing community resources.
- **Standard 5:** An education leader promotes the success of every student by acting with integrity, fairness, and in an ethical manner.
- **Standard 6:** An education leader promotes the success of every student by understanding, responding to, and influencing the political, social, economic,
legal, and cultural context. (National Policy Board for Education Administration, 2015)

Working within a framework of leadership standards the choices school leaders make are wide-ranging and may influence student learning to varying degrees in a direct and indirect manner. Leithwood, Patten, and Jantzi (2010) examined the influence of four conceptual paths that school leaders have used to impact student outcomes (rational, emotions, organizational, family). The rational path centers on the technical skills of staff including those related to curriculum, teaching and learning. Similar to the human resources path described by Bolman and Deal (1991) the emotions path emphasizes the individual and collective feelings and dispositions of staff as they pertain to school related matters. Working conditions is central to the organizational path and often encompasses variables controlled from outside of the school setting such as class size, funding, length of the school day and curriculum. The final path, the family path, includes family related factors, which may include those that the school has a direct influence over as well as those that the school cannot influence or alter. Each path is comprised of variables that are determined to impact student learning. Leithwood et al. (2010) suggested that school leaders could increase student achievement by improving the conditions of variables on each path and that a more traditional focus on classroom level instruction alone would not result in overall high levels of student achievement.

**Distributed/Shared Leadership**

Blase and Blase (2000) identify specific instructional leadership characteristics including providing alternative solutions, engaging in coaching and collegial
conversations, modeling effective instruction, providing opportunities for peer collaboration, and facilitating professional development opportunities. More recent research has broadened the focus of instructional leadership to include collaboration among teachers, creating opportunities for professional growth, and the development of professional learning communities (Marks & Printy, 2003). This shift has stimulated a new line of research looking at different perceptions of leadership, which researchers are calling shared instructional leadership (Marks & Printy, 2003) or distributed leadership (Hulpia & Devos, 2009; Mayrowetz, 2008; Scribner, Sawyer, Watson, & Myers, 2007).

Research of effective instructional leaders demonstrates that these individuals collaborate with teachers in curricular matters and instructional challenges. In addition, they facilitate professional learning opportunities, develop an instructional emphasis in schools, embed group goals within a shared vision for instruction, and provide individual and differentiated support to teachers (Heck, Larson, & Marcoulides, 1990; Leithwood, Jantzi, Silins, & Dart 1993). The responsibility for leading change as it relates to instruction is no longer the responsibility of one individual. The principal no longer acts as the sole leader within the school setting but instead facilitates learning by inviting teachers and others to share in the instructional leadership of the school (Day et al., 2000; Lambert, 2002; Marks & Printy, 2003).

Contemporary views on leadership suggest that distributing leadership across the organization will result in higher levels of achievement beyond what can be accomplished by a single leader (Elmore, 1999; Kouzes & Posner, 2012). According to Marks and Printy (2003), shared instructional leadership involves collaboration with
teachers on curricular matters, instructional practices, and assessment issues often leading to changes in pedagogy and student achievement. Shared leadership often includes staff developers, district personnel, and school-based administrators to enhance student achievement through a consistent focus on learning, promoting communities of professional learning, and creating coherence (Knapp et al., 2003). In a shared leadership model principals and teachers work together to influence curriculum, assessment and instruction (Printy, Marks & Bowers, 2009).

According to the research increased teacher influence in schools may positively impact school improvement (Mayrowetz, Murphy, Seashore-Louis, & Smylie, 2007; Spillane, Halverson, & Diamond, 2004). Wahlstrom and Louis (2008) conducted a quantitative research study for the purpose of examining factors around principal and teacher interactions as well as teacher-to-teacher interactions to determine how these impact classroom instruction. Findings from 4,165 surveys completed by K-12 teachers from schools across the United States supported the idea that expanding the decision making arenas in schools beyond school administrators is an important step that leaders can take to improve instruction. Principal support for teacher leaders increases their effectiveness (Leithwood et al., 2004) and builds capacity within the school (Youngs & King, 2002). Developing the human capital, or the quality of individual teachers in conjunction with the social capital, which refers to the collective development of a group of teachers is likely to lead to school-wide success (Fullan, 2014).
Transformational Leadership

Much like other models of leadership, varied definitions of transformational leadership exist. Burns introduced transformational leadership in 1978 and proposed that transformational leaders influence others through reciprocal relationships as opposed to power and authority (Printy et al., 2009). According to Pepper (2010), transformational leadership was considered a moral endeavor that raised the morale and motivation of the leader and followers. Transformational leadership has been found to have less of an impact on student outcomes as compared to instructional leadership (Robinson et al., 2008). However, some believe that transformational leadership influences instructional leadership and is, therefore, a necessary condition for a successful model of instructional leadership to exist (Marks & Printy, 2003; Printy et al., 2009).

Transformational leadership centers on the leader's ability to make group members become more interested in the needs of the group and less interested in themselves. Transformational leaders build commitment to organizational goals through interpersonal relations. According to Leithwood (2005), transformational leadership emphasizes the values and strategies implemented by those within an organization to foster capacity building and personal commitment to organizational goals. Hallinger (2003) shares that unlike other leadership models that focus on supervision, curriculum and instruction, “transformational leadership seeks to build the organization’s capacity to select its purposes and to support the development of changes to practices of teaching and learning” (p. 330). Transformational leaders in the school setting focus on the individual
and collective understandings, skills, and commitments of teachers as a means of improving organizational performance (Hallinger, 1992).

Transformational leaders focus on the vision of their organization, by cultivating a shared purpose and shared organizational goals (Day & Sammons, 2013). Principals, who are transformational leaders not only build their teachers’ skills to support organizational goals but support capacity, commitment and resilience of teachers to ensure goals are met (Day & Sammons, 2013). Other practices that define transformational leaders include their ability to build a collaborative culture, restructure the organization and foster relationships between the school and the broader community (Chrisman, 2005). Principals following this model of leadership also create positive working conditions for teachers by emphasizing staffing, ongoing teacher support and minimizing distractions that impact a teacher’s ability to work (Day & Sammon, 2013; Hallinger, 2003).

Leithwood and Jantzi (1997) adapted a model for school transformational leadership based on models found in non-school contexts. This adapted model of transformational leadership includes six dimensions.

- Building school vision and goals: The principal identifies new opportunities for his or her school and develops, articulates, and inspires others with a vision of the future.
- Providing intellectual stimulation: The principal challenges team members to re-examine assumptions concerning their work and rethink how it can be performed.
• Providing individualized support: The principal demonstrates respect for team members and concern for their feelings and needs.

• Providing an appropriate model: The principal sets an example for school members to follow that is aligned to the values the principal promotes.

• Fostering acceptance of group goals: The principal promotes cooperation among school team members, and encourages them to work together toward common goals.

• Holding high performance expectations: The principal maintains high expectations for school team members.

Commonalities can be found throughout the varied definitions of transformational leadership and include the implementation of shared leadership (Leithwood & Jantzi, 2000; Louis & Marks, 1998), a commitment to group goals (Hallinger, 2003; Lambert, 2002; Leithwood, 1994), and the development of organizational capacity (Hallinger, 2003). Principals who are transformational leaders are able to identify and articulate a school vision, motivate others through example, challenge the status quo, and provide support and development to staff members (Abu, Khasawneh, & Al-Omari, 2009; Robinson et al., 2008).

Research on the effects of transformational leadership finds that this form of leadership has a greater impact on organizational processes associated with employee practices, motivation and satisfaction, as opposed to student outcomes (Leithwood & Jantzi, 1999; Leithwood & Jantzi, 2005). In a review of 32 studies published between 1996 and 2005, pertaining to transformational leadership, Leithwood and Jantzi (2005)
found transformational leadership to have a significant yet indirect effect on student achievement. Griffith’s (2004) research found that transformational leadership was associated with positive outcomes such as improvements in the school environment and in teacher and staff relationships. Using survey data from elementary school staff and students, Griffith also determined that principal transformational leadership showed an indirect effect on student achievement. Based on this research, Griffith states that:

Results add to the evidence that the theory of transformational leadership describes effective leadership in a variety of settings, including public educational settings. Staff reports of principal behaviors could be described regarding three components of transformational leadership: inspiration or charisma, individualized consideration, and intellectual stimulation. Principal transformational leadership was not associated directly with either school staff turnover or school performance. Rather, principal transformational leadership showed indirect effects, through staff job satisfaction, on both school staff turnover (negative) and school performance (positive). (p. 349, para. 2)

**Integrated Models of Leadership**

Marks and Printy (2003) examined the impact of integrating models of shared instructional leadership and transformational leadership on pedagogy and student achievement. These researchers suggested that an integrated model of leadership would result in high quality teaching and high levels of student learning within schools participating in educational reform. According to Marks and Printy, an integrated model of leadership results from the shared leadership actions of the teachers and principals in
conjunction with transformational practices that build capacity and a shared commitment of all staff. In a follow-up study of integrated leadership practices, Printy et al. (2009) determined that schools succeed and grow when principals and teacher leaders employ a model of leadership that integrates practices associated with both instructional and transformational leadership.

In their 2009 study of integrated leadership, Printy et al. maintained a view of principal transformational leadership as a necessary condition for shared leadership to exist. Information from this qualitative research study created a case for implementation of a shared instructional leadership model, influenced by conditions created through transformational leadership. This supported findings from their previous research (Marks & Printy, 2003).

Educational reforms such as the implementation of the Common Core State Standards has changed teaching and learning at the classroom level. As teachers have made the shift to the Common Core they have been called upon to act as facilitators of learning to move away from the more traditional role of lecturer. Principals must continue to prepare and support teachers through this change, helping teachers to understand not only the standards but also the pedagogy necessary to implement the CCSS (Mathis, 2010). According to Marzano (2015), the movement to the Common Core represents second order change.

It is a shift in the philosophical thinking about the nature of teaching and learning. This shift says: We will no longer teach students to memorize by rote, to understand superficial facts and figures without more nuanced understanding,
applicable to real-world problems. Rather, we will teach them to analyze, to
generate and test hypotheses. We will ask them to think like mathematicians
rather than just do math. We will ask them to think like writers rather than just
scribble sentences. We will ask them to use complex cognitive skills to analyze
the very complex problems they face as citizens in the 21st century. (para. 3)

This type of change has increased the expectations for student achievement and
teacher performance (Provost et al., 2012) challenging principals to understand the
behaviors, dispositions and leadership styles that are necessary to meet the new demands
placed upon building level leaders. Leadership remains a critical school-level factor
associated with student learning (Hornung et al., 2010; Jacques et al., 2012). Principals’
attitudes and behaviors shape how schools create the context in which students learn
(Davis et al., 2005). Setting directions, developing people and redesigning the
organization are at the heart of the knowledge, skills, and dispositions often associated
successful principals (Leithwood et al., 2004). Evidence supports the positive effects
associated with the development of people within the organization, which are shaped by
the context within which people work and the interactions they have with those in
leadership roles (Leithwood et al., 2004).

Darling-Hammond, Wilhoit and Pittenger (2014) suggest that the new college and
career readiness standards developed within the framework of the Common Core have
increased the need for redeveloped systems of accountability that are no longer rooted
solely in standardized testing. This new accountability proposed by Darling-Hammond et
al. encourages the development of meaningful learning, resource accountability and
professional capacity, which supports the development of people within and beyond the school environment.

Hargreaves and Fullan (2012) have reimagined the term professional capacity as professional capital, which emphasizes the development of individual and group actions within schools. Developing strong internal accountability, which is the collective responsibility for continuous improvement and school success (Fullan, Rincon-Gallardo & Hargreaves, 2015; Hargreaves & Shirley, 2008) is a result of an emphasis on building professional capital. Professional capital is comprised of human capital, social capital and decision making capital and includes the resources, investments and assets that develop the profession and practice of educators (Hargreaves & Fullan, 2012).

Kentucky has continued to focus on principal preparation and the implementation of administrator standards as a means of developing school leaders. Kentucky adopted the 2008 Interstate School Leaders Licensure Consortium (ISLLC), Educational Leadership Policy Standards, which were a revision to the original standards drafted in 1996. ISLLC standards establish a common set of knowledge, skills and attributes expected of school leaders, and serve as the foundation for the preparation and appraisal of school leaders. The standards set the expectation that “an education leader promotes the success of every student” (CEEDAR Center, 2016). Used in conjunction with Kentucky’s Dispositions, Dimensions and Functions for School Leaders, ISLLC standards guide the procedures for obtaining administrative certification in Kentucky (American Institute of Research, 2016; CEEDAR Center, 2016; Kentucky’s Education Professional Standards Board, 2016).
In 2005, Kentucky began to revise principal preparation programs throughout the state. The Kentucky Cohesive Leadership System (KyCLS) funded by the Wallace Foundation, facilitated discussions with stakeholders on how to best prepare school leaders for their changing roles. This committee has worked with the Commonwealth Collaborative of School Leadership Programs (CCSLP) as well as with the Education Professional Standards Board (EPSB), the Council on Postsecondary Education (CPE) and the Kentucky Department of Education (KDE) to determine how to best improve principal preparation programs (Kentucky Cohesive Leadership System, 2008). As a result of these discussions the Kentucky Cohesive Leadership System of Education was joined by government, business and community organizations to share their expertise in developing recommendations about what school leaders need to know and be able to do as they lead 21st century schools. This document serves as the driving force in developing world-class leadership preparation programs for Kentucky’s kids. The implementation of the dimensions, functions, indicators, exemplar modules, anchor assessments and assessment rubrics in this document will provide aspiring principal candidates with the knowledge, skills and behaviors to become highly effective instructional leaders (Kentucky Cohesive Leadership System, 2008).

**Conceptual Framework: Professional Capital**

Hargreaves and Fullan’s (2012) framework for building professional capital, which is convergence of human, social and decision making capital, served as the conceptual framework for this research. In their book, *Professional capital: Transforming teaching in every school*, Hargreaves and Fullan describe the relationships
between each component of professional capital (PC) including human capital (HC), social capital (SC) and decision making capital (DC). According to Hargreaves and Fullan, professional capital can be expressed using the following formula, \( PC = f (HC, SC, DC) \) (p. 88, para. 3).

The development of human capital has been central to many reform efforts (Leana, 2011; Pil & Leana, 2009) and refers to the quality of teachers based on cumulative skills, knowledge and ability, developed through training and experience (Hargreaves & Fullan, 2012; Leana, 2011; Pil & Leana, 2009). Human capital includes knowledge of subject manner, pedagogy, and an understanding of children and how they learn.

Moving beyond the capacity of individual teachers, social capital refers to the quality and quantity of the relationships among teachers that supports the development of human capital (Comer, 2015; Fullan, 2014; Hargreaves & Fullan, 2012). Social capital improves the skills of all teachers within the school setting by providing them with access to the human capital, or talents and expertise of others. The principal’s primary role, according to Fullan (2014) is to build the social capital of teachers.

The final element, decision making capital, refers to the daily decisions and judgments made by both individual teachers and groups of teachers to support teaching and learning (Callingham, Beswick & Ferme, 2015; Fullan, 2014; Hargreaves & Fullan, 2012). Principals support decision making capital by cultivating human and social capital over time with targeted professional development (Hargreaves & Fullan, 2012).
Each component was viewed in regards to its impact on developing professional practice in high performing schools. According to Hargreaves and Fullan (2012), “getting good teaching for all learners requires teachers to be highly committed, thoroughly prepared, continuously developed, properly paid, well networked with each other to maximize their own improvement, and able to make effective judgments using all capabilities and experience” (p. 3).

**Human Capital**

Human capital refers to the quality of teachers and is driven by the recruitment of talented teachers and the development of a teacher’s skills and talents over time (Consortium for Policy Research in Education, 2009; Fullan, 2014; Hargreaves & Fullan, 2012). To support human capital principals must hire high quality teachers and develop their skills through ongoing professional development and feedback. When recruiting new teachers, principals should seek individuals who possess the following qualities: (1) a commitment to the learning of all students, (2) strong practices related to instruction, (3) the desire to work in a collaborative environment, and (4) a focus on continuous learning (Fullan, 2014). In the field of education, human capital is more than just the understanding of content and includes the skills necessary to teach content as well as an understanding of children, learning and innovative practices to support diverse learners (Hargreaves & Fullan, 20012).

As principals develop the human capital of teachers they must take into consideration three broad dimensions of human capital. These include preparation, which refers to the training and certification of teachers, and recruitment, which includes
mentoring, and induction programs. The third dimension of human capital involves the retention of teachers, which focuses on how teachers are supported after they are recruited into the workforce. Retention includes opportunities for professional growth, compensation and positive working conditions as well as other types of support that may come through evaluation and feedback (Best, 2010; Hargreaves & Fullan, 2013). As Myung, Martinez and Nordstrum (2013) share:

A comprehensive human capital system must attend to the need for districts to (1) Acquire (get the right teachers in the right positions on time); (2) Develop (support professional growth in school-based learning communities); (3) Sustain (nurture, reward, and challenge high-performing teachers); and (4) Evaluate (make evidence-based personnel decisions) the very best human talent they can. (p. 3)

Hargreaves (2015a) offers these solutions regarding the development of teacher human capital:

- Recruit from the top tiers
- Select for moral commitment
- Rigorous preparation in theory and practice
- Take pay off the table
- Attractive working and collegial environment
- Talk up teaching as a profession (p. 14)

Principals have the ability to develop the human capital of teachers through their role in the hiring, development and support of teachers. Fullan and Hargreaves stress the
importance of developing the human capital of groups of teachers and not merely focusing on individual teachers (Hargreaves & Fullan, 2012, Hargreaves & Fullan 2013). To accomplish this one must support the development of human capital in partnership with social capital. Social capital, according to Fullan (2014), increases each individual teacher’s knowledge and skills by providing greater access to the human capital (skills and knowledge) of other staff members and when combined with human capital yields positive outcomes.

**Social Capital**

Social capital enables teachers to learn from each other by building collaboration, trust, communication and learning in within teams (Comer, 2015; Fullan, 2014; Hargreaves & Fullan, 2012; Leana, 2011). Social capital is conveyed through the interactions and relationships among people and serves as a resource when members benefit from the expertise of others with whom they interact (Coleman, 1988; Hargreaves & Fullan, 2012; Penuel, Riel, Krause, & Frank, 2009). Fullan (2014) claims that building social capital is an essential role of the principal and that the work must be precise and extend into the broader community. Schools with strong social capital lead to school-wide success as teams work together to get better at their practice (Fullan et al., 2015).

Carrie Leana’s (2011) study of 130 elementary school in New York City demonstrates the connection between human capital, social capital and student achievement (Hargreaves & Fullan, 2013). Leana (2011) researched the impact of social capital and human capital on math achievement for fourth and fifth grade students, in over 130 New York City schools, during a one-year period. An examination of human
capital included factors such as teacher qualification and competencies, education, classroom experience and the teacher’s ability to provide mathematical instruction (based on their answers to several scenarios regarding mathematics instruction). Social capital was examined when teachers responded to questions about communication, trust, collaboration, conversations specific to mathematics instruction, and support. Leana asked questions to identify with whom teachers interacted and why.

Leana (2011) found that high levels of social capital led to positive outcomes pertaining to student mathematical achievement and that schools with the highest level of growth focused on both human capital and social capital. According to Leana, “students showed higher gains in math achievement when their teachers reported frequent conversations with their peers that centered on math, and when there was a feeling of trust or closeness among teachers” (p. 33). Improved human capital cannot drive school success unless it is integrated with social capital fostering collaboration, trust, group work and communication (Fullan, 2014; Leana, 2011; Nappi, 2014).

Collaboration that centers on improved teaching and learning yields positive results regarding student achievement (Elmore, 2007; Fullan et al., 2015; Leana & Pil, 2006). The leadership behavior of principals has a direct impact on the effectiveness of schools (Christensen et al., 2006; Cotton, 2003; Marzano et al., 2005; Norton, 2003) and is critical not only to the success of students but also to the development of teachers. Leadership that supports social capital through the development and collaboration of adults enhances the success of all in the school environment (Hargreaves & Fullan, 2012; Hord, 2009). Principals who focus more time on the development of individual teachers
are at risk of inhibiting the development of social capital, which is a necessary condition to maximize student achievement and supports the development of human capital (Fullan, 2014; Leana, 2011; Leana & Pil, 2006).

When principals spent more time building external social capital the quality of instruction in the school was higher and students’ scores on standardized tests in both math and reading were higher. Conversely, principals spending more of their time mentoring and monitoring teachers had no effect on teacher social capital or student achievement. (Leana, 2011, p. 35)

In examining the impact, the principal has on the development of social capital Lena (2011) reviewed data collected in the Pittsburgh public schools that specifically focused on how the principal impacted teacher efforts in either a negative or positive manner (Leana & Pil, 2006). Ten years of research led Leana (2011) to the conclusion that effective principals supported teachers in developing social capital by providing them with the resources such as time, space, and staffing. This type of principal viewed himself as a facilitator of teacher success (p. 35).

To further understand the benefits of developing social capital, connected to the human capital of teachers, one might look to the research on teacher professional development. Improved teaching is critical to improved learning in an era of standards based reform. Although evidence suggests that teacher professional development is essential for educational change to occur, much of the professional development offered to teachers does not meet the needs of standards based reform efforts (Birman, Desimone, Porter, & Garet, 2000). In their study of professional development, Birman et al.
observed over 100 teachers, reviewed the literature on teacher professional development and conducted ten in-depth case studies regarding professional development practices. The results of their research identified key elements of effective professional development. Among these key elements was the notion of collective participation, which supports the participation by teams of teachers in specific professional development. Advantages of collective participation included increased integration, communication, problem solving and a shared professional culture (Birman et al., 2000).

The goal of professional development, according to Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009), is to strengthen the professional learning communities of teachers. Among their findings on professional development, these authors determined that a collaborative style to professional learning would promote school change that has benefits beyond the classroom. Peer collaboration is an essential element of effective professional development in that it fosters communication amongst teachers, allowing them to articulate their own instructional approaches as they learn from others (Johnson, Lustick, & Kim, 2011). The degree to which peer collaboration occurs is directly related to the development of social capital within the school setting.

**Decision Making Capital**

The final capital is decision making capital, which refers to one’s ability to make professional judgments (Fullan, 2014; Hargreaves & Fullan, 2012; Hargreaves & Fullan, 2013). The power of decision making is found in both individual decision making and decisions made by groups, rooted in the experiences, practices and reflections that accumulate over time. The capacity to make good decisions stems from both human and
social capital and is supported with practice, mentoring, coaching and inquiry (Hargreaves, 2015b).

Similar to the development of human and social capital, the actions of principals must be deliberate to support decision making capital. Fullan and Hargreaves (2012) support the practice of instructional rounds as one tool for fostering the decision making skills of staff. Not unlike medical rounds, a fundamental way in which doctors improve their practice, instructional rounds involve observations of classroom practice by groups of staff leading to a shared responsibility for systemic change (City, 2011). Instructional rounds are a strategy to enhance the decision making capital of teachers by providing opportunity and practice as it relates to making judgments about professional practices employed by teachers, by observing the decisions made by others.

Promoting the professional capital of teachers will involve a change in culture that builds capacity throughout the organization (Fullan, 2014; Hargreaves & Fullan, 2012). To successfully lead schools in the development of professional capital principals must develop trust to support collaboration and continuous growth. Relational trust according to Bryk and Schneider (2003) focuses on the role relationships of the various members within the school setting (e.g., teachers and students, teachers and parents, teachers and teachers and small groups with the principal). Relational trust centers on respect, personal regard, competency and integrity. Building relational trusts benefits schools by supporting collective decision making to support school improvement. Bryk and Schneider found through their research of over 400 Chicago Public Schools that relational trust increased the likelihood that reform initiatives would take hold across
school settings. Principal leadership was found to be a key factor in the development of trust, which was associated with higher levels of student achievement.

The term capital refers to the leveraging of assets to accomplish identified goals. Hargreaves and Fullan (2012) promote what they refer to as professional capital as a means of improving the teaching profession by leveraging the skills and talents of individuals and teams. According to Fullan (2012), principals must explicitly address each component of professional capital (human, social and decision making capital) and the interactions of the three components with each other.

The conceptual framework for this research stemmed from Hargreaves and Fullan’s (2012) framework on developing professional capital as a means of improving the teaching profession, as described in *Professional capital: Transforming teaching in every school*. The three-part model of professional capital, which includes human, social and decision making capital, is a framework that principals may use as they lead learning in their schools, within a collaborative school environment. The researcher gathered data from elementary school principals and their teachers regarding principal behaviors that supported the development of each component of professional capital throughout the implementation of the Common Core. This allowed the researcher to analyze data to determine the impact that specific behaviors in each component had on student growth and to determine if one component was more important than the others, based on the perceptions of principals and teachers.
Summary

Leading schools in times of change can be a daunting task for school principals. School leaders are responsible for making decisions and providing leadership in several critical areas including instruction, school culture, human resources, operations, vision and mission, community relationships and micro political actions which focuses on the relationships between other functions (Portin, Schneider, DeArmond, & Gundlach, 2003). Understanding the impact of principal leadership is essential as schools across the country continue to implement the Common Core State Standards. The Common Core Standards represent what might be the most significant educational change that has occurred in the public school system, since the passage of the No Child Left Behind Act (Vecellio, 2013).

Although the Common Core may represent one of the most sweeping reform efforts in American education (Vecellio, 2013), it is a result of numerous attempts to transform the U.S. educational system that have occurred over the last 50 years. In 1965 the Elementary and Secondary Education Act was signed into law by President Johnson, and provided federal dollars to schools serving students from lower socioeconomic levels (Hewitt, 2011; Standerfer, 2006; Umphrey, 2011). Often referred to as Johnson’s war on poverty, ESEA aimed to eradicate the achievement gap for students of color as well as for students living in poverty (ESEA, 1965; Hewitt, 2011; Thomas & Brady, 2005). ESEA was broken down into several areas of educational focus originally organized into six titles. Revised every five years since its conception ESEA has impacted the standards
movement by identifying discrepancies in the education provided to various groups of students reinforcing the need for educational equity for all children.

Stemming from various lawsuits brought forth on behalf of children with disabilities the Education for All Handicapped Children Act (PL-94-142) was adopted to eliminate inequities in the educational system for disabled students. In November of 1975 Congress passed the Education for All Handicapped Children Act, which required that all students, regardless of ability, receive a free and appropriate education in the least restrictive environment (Education for All Handicapped Children Act, 1975; Schuster, 1985). P.L. 94-142 supported children with disabilities who had previously been denied an appropriate education as well as the one million children with disabilities who had been excluded from any form of education.

Often viewed as the catalyst for standards based reform, A Nation at Risk declared that “the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people” (National Commission on Excellence in Education, 1983). This 1983 report prepared by then Secretary of Education, Terrel Bell, addressed concerns in four overarching areas including content, expectations, time, and teaching (National Commission on Excellence in Education, 1983; U.S. Department of Education, 2008) and determined that there had been a steady decline in academic achievement for American students. Recommendations in A Nation at Risk included an increased school day and year, the adoption of more rigorous standards, mandated courses in core subjects including math, English, science, social studies, computers and foreign language. In addition, teacher quality was
addressed with recommendations for improved teacher preparation programs, competitive salaries, appropriate resources and opportunities for professional development (National Commission on Excellence in Education, 1983). A Nation at Risk ignited comprehensive school reform efforts, drew attention to the importance of increased accountability and was a driving force for the standards movement (Weiss, 2003).

In 1994 President Clinton reauthorized the Elementary and Secondary Education Act, which launched the country into an era of standards, based education. The ESEA was renamed the Improving America’s Schools Act (IASA) and focused on improving the quality of teaching and learning in America’s schools (Goertz, 2007; Hamilton et al., 2008; IASA, 1994). Rooted in four key elements, IASA focused on (1) high standards for all students, (2) teacher training and professional development to support high standards, (3) accountability for improved student achievement, and (4) the development of partnerships between schools, families and communities (IASA, 1994).

The Elementary and Secondary Education Act was reauthorized in 2001 by George W. Bush, as the No Child Left Behind Act (NCLB). Described by Bush as ‘the cornerstone of my administration” (NCLB, 2001; U.S. Department of Education, 2003) NCLB was enacted to address concerns about the lack of rigor and accountability associated with the existing educational system (Cortiella, 2006; Hamilton et al., 2008; NCLB, 2001). The purpose NCLB was to ensure that all students in schools receiving federal funds received a “fair, equal, and significant opportunity to obtain a high-quality education, and reach, at a minimum, proficiency on challenging state achievement test
standards, and state academic assessments” (NCLB, 2001 USC 6301). Under NCLB each state developed a set of standards and was held accountable for student achievement relative to the standards, based on annual testing (Hamilton et al., 2008). Schools were required to demonstrate that all students, including all subgroups, made annual yearly progress and demonstrated proficiency in the areas of math and reading by 2014.

Critics of NCLB saw significant flaws in both the requirements and implementation of the act, particularly related to requirements for meeting annual yearly progress (AYP) for all students by 2014 (Hamilton et al., 2008; Mathis, 2006; Rothstein & Jacobsen, 2006). According to Hoff (2009) of the 132,660 schools in the country, nearly 30,000 failed to make AYP in the 2007-2008 school year. As a result, many schools increased time spent on preparing for the test, thereby decreasing time spent on instruction (Ellis, 2008; Guilfoyle, 2006). In addition, many states ultimately reduced the rigor of their standards in an effort to receive ongoing federal funding (Karp, 2003; Shanahan, 2013).

In response to shortcomings of NCLB, the Common Core State Standards have emerged as a means of improving the overall quality of education for all students, serving as an equalizer regarding access to rigorous content and consistent expectations for learning (Schmidt & Burroughs, 2012). The Common Core build upon existing state standards and are clear, rigorous, internationally benchmarked and evidence based (McLaughlin & Overturf, 2012; National Governors Association, 2014; Neal, 2014). The standards are relevant to the real world and reflect knowledge and skills that students will need to be college and career ready in the 21st century. The Common Core aims to
prepare students to live and work in a global economy (Common Core State Standards Initiative, 2012; National Governors Association, 2014) and supports the requirements of the Every Student Succeeds Act of 2015, which calls for college and career ready standards for America’s learners (U.S. Department of Education, 2015c).

The standards movement has focused increased attention on the role of the school leader and the impact that principals have on school reform and student achievement. As districts across the country continue to implement the Common Core State Standards, the importance of collaborative school level leadership to create a culture for change will be magnified. Decisions regarding the implementation of the CCSS are made at the state and local levels (Common Core State Standards: Myths vs. Facts, 2015; National Governors Association Center, 2014). Therefore, states, districts and schools are taking different approaches to implementing the standards. As schools continue their implementation of Common Core Standards, principals must understand the benefits of varied models of leadership, as they pertain to teaching and learning. Doing so will allow principals to create conditions for positive change that support educational reform and initiatives.

Varied models of leadership exist all of which may support, to some degree, the necessary changes required to successfully implement the Common Core State Standards. One such model is instructional leadership that has a goal of facilitating the improvement of teaching and learning (Bottoms & O’Neill, 2001). Hallinger (2005) states that instructional leadership resulted from increased expectations for accountability by schools and school leaders. Instructional leadership altered the view of the principal as a
manager of operations to a leader of instruction. Research of effective instructional leaders demonstrates that principals facilitate change through collaboration and are no longer the only individual expected to lead change within the school setting. In defining the roles of principals as instructional leaders, Gulcan (2012) identified five key roles including (1) identifying mission and vision, (2) support for programming and instruction, (3) providing opportunities for staff development, (4) monitoring and evaluating teaching, and (5) creating a positive school climate.

Transformational leadership represents another style of leadership that has impacted classroom practices intended to improve student learning. Transformational leaders move group members to a focus on the needs of the group or organization as opposed to a focus on themselves. Principals who are transformational leaders articulate a school vision, motivate others, and provide support and development to individual staff members (Leithwood, 1994; Robinson et al., 2008). Four practices often associated with transformational leadership include (1) inspirational motivation, (2) individualized consideration, (3) charisma, and (4) intellectual stimulation (Bass & Avolio, 1994). Principals who are transformational leaders create positive working conditions for teachers through ongoing support (Day & Sammon, 2013, Hallinger, 2003). Leithwood and Jantzi (2006) shared that transformational leadership strongly influences teachers work environment as well as their level of motivation. Transformational leaders build commitment, capacity and engagements in its members as they work to meet organizational goals (Leithwood & Jantzi, 2006; Marks & Printy, 2003).

According to Fullan (2002), models of leadership such as instructional leadership
have served as a good first step in the process of improving student learning. Lasting change is the result of leaders who develop the social environment of a school as well as leaders throughout the school, and who promote learning in context and enhance the teaching profession. Hargreaves and Fullan (2012) suggest that building the professional capital of teachers, which centers on the relationships amongst staff, best develops continuous school improvement.

Professional capital is comprised of three other types of capital, which work together to build capacity for school improvement. Professional capital encompasses human capital, social capital and decision making capital. Human capital focuses on the qualifications and expertise of individual teachers. Principals build human capital by hiring and developing high quality teachers (Fullan, 2014; Hargreaves & Fullan, 2012; Leana, 2011). Human capital is complemented by social capital, which refers to the relationships amongst staff that fosters collaboration and the ability of teachers to benefit from the human capital of others. Social capital increases the knowledge and skills of all teachers by allowing them to profit from the expertise, training and knowledge of others. The final capital is decision making capital, which comes from case law and focuses on the judgments and decisions professionals make rooted in their practice, experiences and reflection (Fullan, 2014; Hargreaves & Fullan, 2012). Decision making capital is also closely connected to social capital in that it is refined through interactions and collaboration with colleagues. Hargreaves and Fullan’s framework on developing professional capital through the convergence of human, social and decision making capital will serve as the conceptual framework for this research.
Building professional capital in schools will likely involve a change in culture. In order to improve the effectiveness of teachers through the development of professional capital principals must promote what Hargreaves and Fullan (2012) refer to as the 5 Cs of professional capital. The 5Cs include (1) capability, (2) commitment, (3) career, (4) culture, and (5) context of conditions for teaching. Each must be addressed and strengthened for professional capital to be achieved.

As schools continue to transition to the Common Core Standards, principals will be called upon to lead their schools in responding to the shifts associated with these new standards. Principal leadership will be essential to schools as they revise their curriculum, instruction, assessment and professional development to support the ongoing implementation of the Common Core.

Research supports the significance of principal leadership as it relates to the implementation of educational reform and student achievement (Achieve, 2012; Fullan, 2002; Marzano et al., 2005; Robinson et al., 2008; Waters et al., 2004). To successfully lead their schools in implementing the Common Core State Standards principals must ask themselves what are the dispositions, knowledge and skills demonstrated by effective school leaders (Minckler, 2014).

The purpose of this study was to examine school leadership within the context of developing professional capital of teachers. The researcher examined the extent to which this type of leadership created conditions for positive change during the implementation of the Common Core Standards in elementary schools within the state of Kentucky. Kentucky was selected based on its recognition as a leading state in the implementation
of the Common Core. This research identified characteristics of effective school leaders that create conditions for positive change impacting the implementation of reform efforts, such as the Common Core State Standards. Human, social and decision making capital, which collectively comprises what is known as professional capital, were explored separately and collectively in an effort to identify behaviors associated with effective leadership related to building teacher capacity and a culture of change throughout the implementation of the Common Core State Standards (Hargreaves & Fullan, 2012).
CHAPTER III
METHODOLOGY

Introduction

Leadership is considered to be fundamental to the development of effective schools (Leithwood & Jantzi, 2008; Marzano, 2003; Marzano et al., 2005). In fact, according to Leithwood et al. (2004), “Leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school” (p. 3). The purpose of this study is to examine school leadership by exploring the relationship between principal behaviors that help to develop the professional capital of teachers, and the degree to which these create positive conditions for change. Doing so will help to identify characteristics of effective school leaders that create conditions for positive change impacting the implementation of reform efforts, such as the Common Core State Standards. Behaviors associated with the development of professional capital will be explored in the context of human, social and decision making capital (Hargreaves & Fullan, 2012).

This research study was both qualitative and quantitative in nature and will therefore employ a mixed methods design. Mixed methods design is a process by which the researcher seeks to understand a problem by collecting and analyzing information by mixing qualitative and quantitative methods (Creswell & Plano Clark, 2007). This research study was qualitative in that it was a study of something occurring within its
natural setting (Denzin & Lincoln, 2000; Merriam, 2009). A survey was used to collect data regarding principal and teacher perceptions regarding the development of professional capital, within the natural setting of their individual schools, and the extent to which these created positive conditions for change during the implementation of Common Core Standards. Specific survey questions were posed to ascertain information about the leadership behaviors employed by Kentucky elementary school principals that built teacher capacity to create conditions for change, through the development of professional capital. Teacher participants were asked to evaluate the degree to which their principal’s behaviors developed their human, social and decision making capital, collectively known as professional capital, in order to create positive conditions for change. Questions were asked within the context of behaviors displayed specifically during the implementation of the Common Core. Principal participants evaluated their own behaviors to determine the degree to which they perceived themselves as having displayed specific behaviors that developed the professional capital of their teachers in order to create positive conditions for change.

The researcher made inferences based on the evidence collected through the numerical analysis of a set of measured variables (Cohen, Manion, & Morrison, 2000; Field, 2009) seeking to quantify survey responses. To develop a deeper understanding of survey results quantitative research was used as a means of explaining the relationship between variables to determine if one or more variables change another variable (Creswell, 2012). However, qualitative research was also used, allowing the researcher
to explore the perceptions of participants and examine feedback provided through open-end survey questions.

The Common Core State Standards have resulted from a renewed focus on improving student learning outcomes by preparing students for college and careers as they compete in a more globalized economy (Alliance for Excellent Education, 2014). Common Core State Standards provide clear goals about what K-12 students must learn to be successful in college and career (Common Core State Standards Initiative, 2012; Eilers & D’Amico, 2012; McLaughlin & Overturf, 2012). Educational standards are the learning goals that identify what students should know and be able to do at each grade level (Common Core State Standards Initiative about the Standards, 2015). Assessing student achievement on these goals is an essential part of the implementation of the Common Core.

The implementation of Common Core Standards presents challenges for most schools by introducing newly defined, specific grade level standards that are rigorous, internationally benchmarked and in most cases, contains higher levels of cognitive demand than previously implemented state standards (National Governors Association, 2014). Principals are charged with determining the best strategies for implementing standards within their schools without a specific blueprint for doing so. Orchestrating this magnitude of change requires elementary school leaders to build teacher capacity, facilitate staff discourse and support staff with appropriate professional development (Eilers & D’Amico, 2012; Knight, 2011; Reed, 2013).
The researcher developed a survey rooted in the conceptual framework of Hargreaves and Fullan’s (2012) work on building human, social and decision making capital as outlined in their book, *Professional capital: Transforming teaching in every school*. Surveys were administered to elementary school principals and teachers in the state of Kentucky. For the purposes of this study elementary schools has been defined as schools which include students in any or all of the following grades: kindergarten, first, second, third, fourth and fifth grades. Kentucky was selected based on noted strengths in relation to Common Core implementation. Not only was Kentucky identified as a state with a plan for early implementation of the Common Core, but in a report titled, *State Implementation of Common Core Standards*, prepared by the Southern Regional Education Board, Kentucky was identified as a leading or strong state in the implementation process based on the following five topic areas:

1. Timeline and Approach to Standards and Assessments
2. Common-Core Aligned Teaching Resources
3. Professional Development
4. Evaluation of Teachers and Leaders
5. Accountability (Southern Regional Education Board, 2014)

This research study was designed to answer the following questions:

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for
positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create
conditions for positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

Research Design

According to Caruth (2013), mixed methods research resulted from the limitations associated with both quantitate and qualitative research. Mixed methods design is often used when neither quantitative nor qualitative research alone provides enough information to answer a research question (Creswell, 2012). Caruth (2013) shares that mixed methods research is a worthwhile alternative to quantitative or qualitative research and states that:

It offers richer insights into the phenomenon being studied and allows the capture of information that might be missed by utilizing only one research design,
enhances the body of knowledge, and generates more questions of interest for future studies that can handle a wider range of research questions because the researcher is not limited to one research design. (p. 112)

Venkatesh, Brown and Bala (2013) identified seven purposes for using mixed methods research, which includes complimentary, completeness, developmental, expansion, corroboration or confirmation, compensation and diversity

- Complimentary allows the researcher to gather mutual viewpoints on experiences that are similar.
- Completeness ensures total representation of experiences or associations are attained.
- Developmental develops questions from one method that result from the implications of a prior method.
- Expansion serves to clarify or elaborate on the knowledge gained from a previously used method.
- Corroboration/Confirmation is used to evaluate the trustworthiness of inferences gained from another method.
- Compensation is used to counter the weaknesses of one method by using another.
- Diversity allows the researcher to acquire opposing viewpoints based on same experiences or associations.

This study used an explanatory sequential mixed methods design, as the researcher will first collect quantitative data (numerical representations of survey results) and then
integrated qualitative data (perceptions of principals and teachers) to enrich the quantitative findings (Creswell, 2012).

According to Marshall and Rossman (2006), qualitative research is not only pragmatic and interpretive but it is also rooted in the experiences of people (p. 3). Qualitative research, according to Denzin and Lincoln (2000), does not seek to determine causal relationships, but instead looks to uncover how people interpret their experiences, understanding that numerous realities or interpretations might exist (p. 9). The researcher looked to understand how teachers and principals, interpreted their experiences, how they constructed their worlds and what meaning they attributed to their experiences as they implemented the Common Core Standards. Use of a survey based on the perceptions of principals and teachers combined with the use of open ended questions contained in the survey supported a mixed methods design as the qualitative questions allowed the researcher to obtain more detailed information beyond the statistical analysis of data (Creswell, 2012).

Cross-sectional research design is rooted in naturally occurring events where variables are not manipulated to determine cause and effect and represent a non-experimental form of quantitative research (Creswell, 2012; Field, 2009; Gay, Mills & Airasian, 2008; Shadish, Cook & Campbell, 2002). This study employed a cross-sectional and descriptive research design, using survey data from a cross section of Kentucky elementary school principals, to gather information concerning the relationship among variables, without manipulating them. Aspects of quantitative research allowed for statistical comparisons between principal and teacher perceptions of leadership.
behaviors to determine if principal behaviors created conditions for positive change through the development of professional capital, which includes human, social and decision making capital, during the implementation of Common Core. Descriptive research, according to Cohen et al. (2000) is often used in educational research to describe and present data. Creswell (2012) shares that quantitative data maybe descriptive in that the researcher describes trends in the data. Descriptive statistics, “indicate general tendencies in the data (mean, mode, median) the spread of scores (Variance, standard deviation, and range) or a comparison of how one score relates to all others” (p. 182). Qualitative inquiry is to make meaning of human actions (Schwandt, 2007, p. 248) by understanding the lived experiences of persons who share time, space and culture (Frankel & Devers, 2000). The researcher also used qualitative inquiry to understand the experiences of principals and teacher throughout their shared implementation of the Common Core.

Surveys were administered to all principal participants. Principal participants were asked to forward the teacher survey to teacher participants. Following the completion of principal and teacher surveys, data was analyzed and described based on the mean score for each survey question presented to principals and teachers within a given school. The relationship between the principal’s mean score and that of the teachers was examined.

The researcher first sought to identify the commonalities and differences that existed between principal and teacher perceptions regarding behaviors that created conditions for positive change, rooted in the development of professional capital within
the context of Common Core implementation. The researcher not only examined professional capital as a sum of human, social and decision making capital but also examined each component, identifying differences and commonalities within each of the three components of professional capital (human, social and decision making capital). Based on commonalities and differences identified for each school, as well as for the collective sum of all schools, the researcher determined if a relationship was apparent between principal behaviors that create positive conditions for change and the development of professional capital.

**Instrumentation**

The researcher utilized a cross-sectional survey as the instrument for collecting data regarding the impact of elementary principals’ behaviors had on creating a culture of change during the implementation of the Common Core Standards. Surveys used in educational research, as described by Cohen et al. (2000), often gather large-scale data to suggest with some level of confidence that specific factors correlate with each other and therefore may be generalized to a broader population. One distinct advantage of using a cross-sectional survey was that it supported the researcher in examining current practices related to the implementation of Common Core Standards. The survey in this research study posed questions pertaining to experiences in the natural setting of each individual school.

The researcher developed and distributed the survey to a predetermined subset of principals in Kentucky, based on specific and consistent criteria. Criteria for principal participation included:
• The letter of consent and the principal survey were only sent to principals in public elementary schools that include students in kindergarten, first, second, third, fourth and/or fifth grades.

• The letter of consent and principal survey were only sent to principals in public elementary schools that include at least two grade levels that participate in the Kentucky Performance Rating for Educational Progress, which is given to elementary students in third, fourth and fifth grade.

• Principal participants were required to provide consent, which was embedded in the survey, and agreed to share the teacher survey with all teachers who instruct using the Common Core Standards (see Appendix B).

• Principal participants were eliminated if they have worked as a principal in their current school setting for less than three years.

Teacher participants consisted of elementary education teachers from Kentucky (an early implementing state of the Common Core) with principals that met the criteria stated above and completed the principal survey giving consent for teacher participation. Elementary teachers were defined as those teaching students in kindergarten through fifth grade. Additional criteria for teacher participants included:

• Teacher participants were required to provide consent which was embedded in the teacher survey (see Appendix F).

Use of an electronic survey permitted the researcher to quickly access participants across state borders to better understand the perspectives of those that began the implementation process at least three years prior to participating in this research study.
Survey questions consisted primarily of closed questions but did include one open-ended question, allowing subjects to identify topics for communication beyond those identified by the researcher. Subject responses were not altered in any way and results have immediate relevance for schools implementing the Common Core as well as other educational reform efforts.

Survey Monkey® was used as the tool by which data was collected. This instrument allowed for the development of an online survey that was distributed to all participants. According to Survey Monkey’s® privacy policy and security statement (Survey Monkey, 2015), the website is secure and uses the most advanced technologies to ensure the security of all customers. According to their privacy policy, Survey Monkey® does not use or sell email addresses of respondents and will not share information obtained through any survey unless a legal subpoena is issued. The researcher developed survey questions in a manner that ensured the confidentiality of all teacher participants and anonymity to the extent possible. Due to the fact that each school had only one building principal anonymity could not be guaranteed for principal participants. However, principal participants were afforded confidentiality by limiting identifying factors for each school that participated in this research study. Schools were randomly assigned a number (e.g., school one, school two or school three). Respondents were not required to submit their name or email address, further preserving the anonymity and/or confidentiality of those who completed the online survey.

Although Survey Monkey® does allow for the creation of graphs based on survey results an additional tool was used for in-depth analysis. Data was exported from Survey
Monkey® to Microsoft Excel for analysis based on demographics and questions posed within the context of the conceptual framework used. Responses from participants were analyzed in an effort to identify relationships between the behaviors of elementary school principals that created conditions for positive change during the implementation of Common Core Standards and the development of professional capital. Specifically, responses were analyzed in regards to the development of professional capital, including human, social and decision making capital, by elementary school principals that created conditions for change during the implementation of the Common Core.

Survey was an appropriate method to gather data from the small representative set of participants, which was used for making inferences and interpreting trends based on the research questions (Marshall & Rossman, 2006, p. 125). A cross-sectional survey was selected to gather quantitative data at a single moment in time to understand the perceptions of principals and teachers and to determine what relationship, if any, existed between these perceptions regarding a culture of change. Specific survey questions focused on the degree to which principal behaviors created conditions for positive change within the context of developing professional capital during the implementation of Common Core.

Researchers, according to Marshall and Rossman (2006), should identify methods for collecting data that are efficient, practical, feasible and ethical. Use of an online survey met these criteria and offered several distinct advantages when conducting this educational research. According to Driver and Urga (2004), data collected from large-scale surveys have been found to be reliable and consistent. Using an online survey
reduces the costs associated with this research (Bennett & Nair, 2010; Greenlaw & Brown-Welty, 2009; Parker, 1992), improves the response time when gathering survey results (Creswell, 2012; Fricker & Schonlau, 2002; Greenlaw & Brown-Welty, 2009) and upholds the ethics of educational research by allowing teacher participants to remain anonymous (Babbie, 2013; Nair, 2013). Electronic mail (email) was used to contact participants and is a preferred form of communication based on speed and efficiency (Heflich & Rice, 1999; Nguyen, 2007). As shared by Marshall and Rossman (2006), using a computer based survey provides access to individuals who may be uncomfortable with or unwilling to engage in face-to-face communication.

An overarching goal of this research study was to identify characteristics of effective school leaders that created positive conditions for change to support the implementation of reform efforts, specifically looking at the implementation of the Common Core State Standards. Surveying principals and their teachers allowed the researcher to identify specific leadership behaviors exhibited by elementary school principals that contributed to creating conditions for positive change throughout the implementation of Common Core Standards.

In addition, the researcher desired to demonstrate the role, if any, that the development of professional capital played in creating a culture of change necessary for implementation of this significant educational reform. According to Hargreaves and Fullan (2012), professional capital refers to “an investment in the collective efficacy of the profession” (p. 42) and is comprised of three other types of capital including human, social and decisional capital. Hargreaves and Fullan indicate that human capital in
teaching is “having the requisite knowledge and skills” (p. 89), which must be developed in conjunction with social capital. Social capital focuses on the relationships among people and how these serve as a resource by allowing teachers to benefit from the human capital or talents of others. Central to social capital strategies aimed at whole system reform is an emphasis on the behaviors of groups as opposed to individuals. The final capital, decisional capital, is described as the ability to make decisions and judgments based on practice, experience and reflection. Professional capital results when there is a merging of human, social and decisional capital (Hargreaves & Fullan, 2012).

The leadership of school principals directly impacts the work of teachers and the achievement of students. Research has demonstrated that principals play a vital role in the development of successful schools (Glanz et al., 2007; Waters et al., 2004). As schools move into uncharted territory by implementing Common Core Standards without a specified or mandated plan for doing so, principals will be charged with leading their staffs in determining the best strategies for meeting more rigorous standards (Eilers & D’Amico, 2013).

Without question, the leadership of school principals affects the work of teachers and the achievement of students. Research has demonstrated the critical role principals play in the development of successful schools (Glanz et al., 2007, Marzano et al., 2005). A quantitative survey was used in an effort to identify the specific leadership behaviors of elementary school principals and the degree to which these created a culture of change through the development of professional capital. Open-ended questions, which are
qualitative in nature, allowed the researcher to collect information, which could not be collected using the closed questions contained in the survey.

Implementation of an embedded mixed methods design provided an opportunity for one form of data to support another form of data (Creswell, 2012). In this study, the qualitative data served as a support for the quantitative data by helping the researcher to better understand the statistical results of the surveys administered. One desired outcome of this study was to quantify data by examining causal relationships, as opposed to looking solely at socially constructed interpretations, which represents an essential characteristic of qualitative research (Marshall & Rossman, 2006; Merriam, 2009). However, survey information gathered was based on the interpretations and perceptions of principals and teachers thereby supporting qualitative aspects of this mixed methods study. “Qualitative researchers are interested in understanding how people interpret their experiences, how they construct their world, and what meaning they attribute to their experiences” (Merriam, 2009, p. 5). The research questions posed in this study were designed to explain the perceptual relationships between the variables of specific behaviors that create conditions for positive change through the development of professional capital.

Participants

This research study employed a probability sampling approach when selecting participants. Creswell (2012) shares that probability sampling is rigorous in that the researcher selects participants who represent a specific population. The participants of this study included Kentucky public elementary school principals who have worked in
their current school for at least three years (during the implementation of Common Core Standards) and have worked in a school that includes students in kindergarten, first, second, third, fourth and/or fifth grades. The researcher deemed it necessary that a principal participant had worked in his/her same school for a minimum of three years, during which time Common Core Standards were implemented. Principal participants were required to have at least two grade levels of students participating in the Kentucky Performance Rating for Educational Progress. Principal participants were limited to those who had provided consent as indicated through their agreement for participation (consent) in the Principal Survey of Leadership Practices (see Appendix B).

Teacher participants included those teachers who were responsible for the implementation of the Common Core Mathematics and/or English Language Arts standards and whose principal met the stated criteria. In addition, teacher participants were limited to those who had worked with their current principal for at least one year, and whose principal had provided consent for teacher participation. Teacher participants were also limited to those whose principal had completed the principal survey (see Appendix B) and to those who had given consent for participation, which was embedded in the Teacher Survey of Principal Leadership Practices (see Appendix F). For the purposes of this study elementary school teachers were those that taught students in kindergarten through fifth grade. The researcher surveyed participants in Kentucky, a state considered a leading state in the implementation of Common Core. Elementary school principals and teachers from Kentucky represented a subset of elementary school
principals and teachers who have implemented the Common Core across the United States.

In order to gather data regarding the implementation of the Common Core, teacher participants were required to have worked in their current school, with same principal, for at least one full school year. The surveys were designed to eliminate principals and teachers who had worked together for less than one year (see Appendices B and F). The researcher deemed it necessary that teacher participants had worked with their principal, in their current school setting, for a sufficient period of time to develop a perspective regarding leadership, and the principal’s development of professional capital amongst the staff.

Principal participants were contacted using their professional email addresses. Addresses for principals were obtained through district and school websites as well as through the Kentucky Department of Education. A recruitment letter (see Appendix A) was emailed to all principals of schools serving elementary age students (kindergarten through fifth grade) within the state of Kentucky. Principal participants were informed that their participation did not bind their teachers from opting out. Participants were also informed that data masking would be used and that data collected from surveys would not be shared between principal and teacher participants. The number of participants was based on the number of principals and teachers meeting the specific criteria for participation.
Research Procedures

The researcher did not use an existing survey to gather data. Instead, the researcher developed two surveys to uncover the perceptions of principals (see Appendix B) and teachers (see Appendix F) regarding the leadership practices of principals related to the development of professional capital. Survey questions identified specific behaviors of principals that created conditions for positive change during the implementation of the Common Core. The online survey was administered using Survey Monkey® and was sent to participants within the state of Kentucky using the professional email addresses provided by district obtained from online resources.

A recruitment letter was shared with all potential principal participants (see Appendix A) meeting the selection criteria and contained a direct link to the survey. The letter of consent, which was embedded in the principal survey, outlined the purpose of the study and conveyed to principals that participation was voluntary and that all information gathered would remain confidential. Participants were informed that responses would be reported in a manner designed to ensure the confidentiality of all principals who participated in this research study. The precise information contained in the principal letter of consent found in Appendix B included:

- Background of the researcher
- Purpose of the study
- Procedures
- Benefits and risks of participation in the study
- Voluntary nature of the study
• Agreement of confidentiality
• Contact information
• Instructions for participation which includes:
  o Providing consent for teacher participation
  o Providing a list of teacher professional email addresses

Upon giving consent to voluntarily take part in the survey, principal participants were asked to complete the survey titled, “Principal Survey of Leadership Practices that Created Conditions for positive change During the Implementation of the Common Core State Standards.” The principal survey is located in Appendix B. Questions provided principals with an opportunity to self-report on their behaviors that created conditions for positive change through the development of all three areas of professional capital including human, social and decision making capital. Principals were also given an opportunity to provide additional information via an open-ended question.

The survey was broken into two sections. The first section was designed to collect general and demographic information about the participants including race, gender, years in education, grade level(s) included in the current school setting, and the number of years the participant has worked as the principal in his/her current building. Principals were also asked to identify themselves as an internal (previously worked in the same school/district) or external hire (no previous experience in the school or district) for the principalship and were asked to identify their school as urban, suburban or rural. The next section of the survey addressed specific leadership practices principals believe they employed that created conditions for positive change within the context of developing
professional capital. The questions posed were based on leadership behaviors identified by Hargreaves and Fullan (2012) that promoted the development of professional capital during the implementation of Common Core. A Likert Scale was used to determine the degree to which participants believe they demonstrated specific behaviors in the three areas of professional capital: human, social and decision making capital.

The survey consisted of 29 questions, which included nine demographic questions. The Likert scale was implemented for nineteen closed questions. The survey included five questions in the area of human capital, seven in the area of social capital and five in the area of decision making capital. The final two closed questions referred to specific aspects of leadership using resources and leadership models developed by the Kentucky Department of Education. The closed questions were followed by one open-ended question, which invited participants to provide additional information regarding their leadership that was not covered in the questions developed by the researcher. This question was qualitative in nature. Findings from the open-ended question were not quantified but were used for descriptive analysis. Frankel and Devers (2000) state that one disadvantage of survey as a means of qualitative research is that, “limited or fixed choice questions may give results that are anti-factual” (p. 115). The inclusion of an open-ended question provided an opportunity for respondents to answer questions beyond those posed by the researcher. To ensure the highest level of participation the researcher sent a reminder email to all potential principal participants two weeks following the initial contact (see Appendix C). A second reminder was sent four weeks after the initial contact was made (see Appendix D). This was followed by as many as two additional
reminders. The goal of the researcher was to increase the response rate using the reminders sent via email.

The researcher reviewed principal surveys to identify potential teacher participants. Teacher participants were limited to those whose principal completed the principal survey including the consent letter (see Appendix B) indicating consent for teacher participation and who had agreed to forward the teacher survey to potential teacher participants. In addition, based on survey responses, teacher participants were limited to those whose principal had worked in their current school for at least three years and who filled out all questions on the “Principal Survey of Leadership Practices that Created Conditions for positive change During the Implementation of the Common Core State Standards.”

A teacher recruitment letter (see Appendix E) was sent to all principals meeting the selection criteria and contained a direct link to the survey. The teacher letter of consent, which was embedded in the teacher survey (see Appendix F) outlined the purpose of the study and conveyed to the teacher that participation was voluntary and that all information gathered would remain confidential. Participants were informed that responses would be reported in a manner designed to ensure the confidentiality of all teachers who participated in this research study. Anonymity was afforded to the extent possible. The specific information contained in the teacher letter of consent (see Appendix F) included:

- Background of the researcher
- Purpose of the study
• Procedures
• Benefits and risks of participation in the study
• Voluntary nature of the study
• Agreement of confidentiality
• Contact information
• Instructions for participation which includes:

Upon giving consent, as contained in the teacher survey, to voluntarily take part in the survey teacher participants were asked complete the teacher survey (see Appendix F) titled, “Teacher Survey of Principal Leadership Practices that Created Conditions for positive change during the Implementation of the Common Core State Standards.”

The teacher survey was similar in design to the principal survey and was broken into two sections. The first section was designed to collect general and demographic information about the participants including race, gender, years in education, grade level(s) included in the current school setting, and the number of years the participant had worked with his/her current principal. The next section of the survey asked teachers to evaluate the degree to which they believe their principals demonstrated specific behaviors that created conditions for positive change within the context of developing professional capital.

The survey consisted of 28 questions, including eight demographic questions. These were followed by 19 closed questions. The teacher survey was identical to that of the principal in that it included five questions in the area of human capital, seven in the area of social capital and five in the area of decision making capital. The closed
questions were followed by an open-ended question, which allowed participants to provide additional information regarding leadership practices demonstrated by their building principal. To increase the response rate a reminder email was sent two weeks (see Appendix G) and four weeks after the initial contact (see Appendix H). These were implemented in an effort to maximize participation in the research study.

Due to a low response rate the researcher sent a revised teacher recruitment letter to all qualifying principal participants (see Appendix I). This letter included an optional introduction that principals could use when emailing potential teacher participants teachers, a specified completion date for the teacher survey, as well as a short explanation of the intended research with an embedded link to the teacher survey, followed by a more comprehensive explanation of the intended research. The research procedures implemented are presented in Figure 1.

**Data Analysis**

The purpose of this cross-sectional quantitative study was to identify the specific principal behaviors reported by principals and observed by teachers that promoted conditions for positive change through the development of professional capital, during Common Core implementation. Descriptive statistics has been used to identify a profile for each school based on results of the principal and teacher surveys. Data has been sorted in a number of ways to identify trends in the data.
Figure 1. Research Procedures
An analysis of the data was completed for each school that had a minimum of five teachers complete the teacher survey in addition to the principal. The first step in analyzing data was to assign a numerical representation for each of the ratings allowed within the survey. For the purposes of this research the following numerical representations were applied to survey responses:

- Strongly agree = 4
- Agree = 3
- Disagree = 2
- Strongly disagree = 1

After converting participant responses into a numerical representation, the researcher triangulated the data through an analysis of survey responses. Data were analyzed and relationships were determined based on the perceptions of principals and teachers pertaining to principal behaviors that supported the development of professional capital of teachers during the implementation of the Common Core, within the context of educational reform in Kentucky. Figure 2 provides a visual representation of the triangulation of data.

Using the numerical representations from survey responses described above, a mean score was established for each individual survey question and for each of the three components of professional capital including human, social and decision making capital. Finally, a mean score was derived for all components of professional capital based on principal surveys. The same procedures were used to analyze survey data from the classroom teachers.
Figure 2. Triangulation of Research Data

Following an analysis of all survey data a school profile was developed for each school that had a minimum of five teachers complete the teacher survey in addition to the principal. Each school was assigned a numerical code (e.g., school one) to ensure that data for each specific principal was matched to the data collected from teachers within the same school. This profile allowed the researcher to draw comparisons between the mean scores for survey questions within each component of professional capital as well as an overall mean for the 19 questions related to professional capital, collectively for all teachers (n=19) and by school. This profile pinpointed commonalities and discrepancies as reported by principals and teachers regarding the observed behaviors of principals that created conditions for positive change during the implementation of Common Core.

An online survey was used to collect data from elementary principals and teachers throughout the state of Kentucky. A numerical rating scale was developed to determine
the degree to which specific principal behaviors were observed to create positive conditions for change during the implementation of Common Core. Use of a Likert Scale provided for a range of responses for the questions posed. This type of scale was useful in that it built in a degree of differentiation for responses provided that was then converted to a numerical scale (Cohen et al., 2000).

In creating the Likert scale the researcher included reversed and negated items to enhance the validity of the survey. In other words, inverse items were included so that all questions are not worded in the same direction. Using inverse or negated items minimizes acquiescence or agreement bias that may be found when items are only worded in a positive manner (Baumgartner, & Steemkamp, 2001; Salazar, 2015; Weijters & Baumgartner, 2012). Acquiescence bias refers to a subjects’ propensity to agree with statements as opposed to disagree (Toner, 1987). Negation may be established in one of three ways, including: (1) direct negation, (2) polar opposites and (3) negation of the polar opposite (Schriesheim, Eisenbach & Hill, 1991). Using negative items decreased bias by reducing response speed and by fostering cognitive reasoning in subjects (Podsakoff, MacKenzie, Lee, & Padsakoff, 2003). Negative items were used sparingly as problems associated with negative items may impact the reliability of the survey (Weijters & Baumgartner, 2012).

The researcher considered various response formats when developing the Likert scale. A four point Likert scale was selected as a means of forcing respondents to make a choice, avoiding a neutral stance. According to Wakita, Ueshima and Noguchi (2012), an odd number of options is used when researchers are in need of neutral option, whereas
an even number of possibilities is used when researchers look to draw upon the opinions or attitudes of those being surveyed. Research on the optimal number of response options has found that scales with four to seven options have strong levels of reliability and validity (Dawes, 2008; Lissitz & Green, 1975).

The researcher created a simple bar graph for each individual question by subsection of survey (human, social and decision making capital) and compare the mean scores for both principal and teacher responses for each question. In addition, a bar graph was developed for each type of capital (human, social and decision making) thereby school allowing the researcher to identify strengths and areas for growth for each school, by capital, as well as for the collective sum of all schools. The bar graphs provided a visual representation of the leadership behaviors of all principals in regards to their development of professional capital.

**Ethical Considerations and Considerations for Minimizing Bias**

One cannot overemphasize the importance of an ethical approach to quantitative research. Researchers have an obligation to conduct research in a manner that is ethical and seeks to protect participants involved in the research study (Brinkmann, 2007; Creswell, 2012; Merriam, 2009; Patton, 2002).

Participation in this research study was voluntary and at no time was personal information of participants revealed. Survey responses were clustered by school to protect the privacy of participants and to ensure that identifying information was not divulged as findings are disseminated. There are no known risks to participants of this study. At no point did this research violate the human rights of any individuals.
The researcher recognized that personal bias may exist based on her own knowledge and leadership regarding the implementation of Common Core Standards. In an effort to minimize bias the researcher will maintain a journal of personal reflections throughout the process of data collection and analysis. Reflecting on data helped the researcher confront any bias that might have arisen as she identified personal feelings or impressions regarding survey responses. The objective was to use these reflections to ensure that interpretation of data was not based on personal feelings, experiences or expectations.

Validity and Reliability

Guaranteeing the validity and reliability of his study is critical to the usefulness of results, which will be obtained through an analysis and interpretation of data collected through an online survey. The triangulation of data occurs when evidence is gathered from a variety of sources allowing one source to substantiate the findings from another source (Corbin & Strauss, 2008; Merriam, 2009). This study included findings from both principals and teachers, which were analyzed in relationship to the development of professional capital. Triangulation of data added to the internal validity, or the congruency of the findings from this study, by allowing for a deeper analysis of the data collected (Corbin & Strauss, 2008; Merriam, 2009; Patton, 2002).

Numerous advantages exist when using an online instrument to gather data. Use of an online survey reduced the costs associated with this research (Bennett & Nair, 2010; Parker, 1992), improved the response time when gathering survey results (Bachmann, Elfrink & Vazzana, 1996; Greenlaw & Brown-Welty, 2009) and upheld the
ethics of educational research by allowing teacher participants to remain anonymous and share prior use of standards is all factors that affect principals and teachers (Babbie, 2013; Nair, 2013). In order to increase the validity of this study, the researcher sought to address challenges presented by Marshall and Rossman (2006) regarding the use of technology in data collection. These include the authenticity of data, safeguarding the anonymity of participants, and issues related to the participants’ use of and comfort with technology.

Reliability is a measure of consistency and the ability to replicate research findings and the extent to which the same results will be produced (Creswell, 2012; Merriam, 2009; Schwandt, 2007). Lack of standardization represents one threat to the reliability (Shaddish et al., 2002) and therefore a predetermined, identical set of survey questions were administered to all participants, regardless of location or grade level taught. Survey Monkey® was the exclusive instrument used to gather data from all participants, thereby increasing the reliability of this research study. Therefore, this research study could be easily replicated across states implementing the Common Core State Standards.

**Limitations**

Several limitations of this study may be evident. The first concerns the sample of participants selected for participation. Although identified as a leading state in terms of implementation of the Common Core, Kentucky represents only one of 43 states currently implementing Common Core Standards. Numerous factors influence each state’s implementation practices related to Common Core. Variations in funding,
professional development offered through each state’s department of education, and prior use of standards are all factors that affect principals and teachers. Therefore, limitations may exist in the generalization of findings from this study.

The sample size proved to be another limitation of this study. Based on the procedures outlined in the chapter the number of participants was limited based on a variety of factors including:

- The number of elementary schools in the state of Kentucky that had a minimum of two grades of students participating in the K-PREP assessment.
- The number of elementary school principals who complete the survey including the embedded consent.
- The number of principal participants that had worked in the same school for at least one full year.
- The number of teachers who completed the teacher survey with embedded consent.
- The collective number of teachers from a given school that completed the survey and met the selection criteria (a minimum of five teachers must complete the survey in addition to the school principal for the results to be included in the final data analysis).

Additional limitations centered on the use of an online survey. Online surveys may have impacted response rates based on each participant’s use, comfort and access to technology. Bias may have existed based on the availability of technology in each school surveyed.
The researcher selected participants in the elementary school setting. This represents another limitation of this research as it eliminated responses from principals and teachers working in grades 6-12. It cannot be assumed that similar results would have been found in middle schools or high schools.
CHAPTER IV
PRESENTATION OF THE DATA

The proposed research study seeks to identify specific leadership practices of elementary school principals, from Kentucky, that created conditions for change during the implementation of the Common Core State Standards, through the development of professional capital. Professional capital is comprised of human, social and decision making capital. Exploring the practices of school leaders within the state of Kentucky, a leading state in regards to implementation of the Common Core, will allow other school leaders to follow their lead when implementing the Common Core as well as other school reform initiatives. In an effort to understand the behaviors and leadership practices employed by elementary principals who created positive conditions to support change during the implementation of Common Core the following questions have been researched.

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?

   a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?

   b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?

   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

**Review of the Survey Administration**

The researcher obtained the names of the 173 public school districts in Kentucky using the Kentucky Department of Education (KDE) website as well as the 2016-2017 Kentucky Schools directory, as found in the KDE bookstore. The researcher used the listing of public school districts found on this website to identify the name, location, superintendent, and district number for each of the 173 public school districts. Additional information was found for each district on the website, which included an alphabetical listing of all schools within the district. School listings contained the school name, grade levels served, current enrollment, the name of the school principal as well as the address and phone number for each school. To procure the correct email address for each elementary school principal the researcher visited the individual school websites for
all schools meeting the definition of an elementary school, defined by the researcher as those that include students in any or all of the following grades: kindergarten, first, second, third, fourth and fifth grades. This process allowed the researcher to obtain the email addresses for 685 elementary school principals across the 173 school districts in Kentucky.

In early October, 2016 the researcher sent a recruitment letter (see Appendix A) to 685 elementary school principals (n=685), requesting their voluntary participation in an online survey. The recruitment letter identified the purpose of the research, procedures for participation, the four research questions, contact information for the researcher and her dissertation advisor as well as a direct link to the principal survey, with an embedded principal consent form. Of the 685 emails initially sent, 69 were returned as undeliverable for a variety of reasons. The researcher updated email addresses and successfully emailed recruitment letters to 55 of these 69 principals.

The first attempt to recruit principals yielded only two surveys of which only one met the criteria outlined by the researcher (n=1). A reminder letter was emailed to principals approximately two weeks following the initial recruitment letter. In an effort to increase the response rate the researcher strategically selected a different day and time to email potential principal participants than was used when emailing the initial recruitment letter. The second attempt to obtain principal participation resulted in the initiation and/or completion of 12 surveys (n=12), of which eight met the criteria for inclusion in this research study. A second email reminder was sent to the remaining 657 principals. Again, the researcher strategically sent the recruitment letter using a different
day and time than previously used. Nine surveys (n=9) meeting the research criteria were completed following this third attempt. A final reminder letter was sent approximately three weeks later (to avoid the Thanksgiving holiday) and yielded nine more surveys (n=9) meeting the criteria outlined by the researcher. When the survey link was closed there were 40 surveys initiated or completed by principals, with 27 meeting the specific criteria for this research (n=27). This represented 4% of the initial sample (see Figure 3).

Figure 3. Identification of the Survey Population for Qualifying Principal Participants

As outlined in the research proposal potential teacher participants were selected based on the following criteria: (1) Their principal provided consent for his/her participation thereby agreeing to forward the teacher recruitment letter to all classroom teachers responsible for implementing the Common Core Standards, and (2) The
principal completed the principal survey and met the requirements outlined for inclusion in this research.

Between November 2016 and May 2017, the researcher emailed all qualifying principals (n=27) the teacher recruitment letter (see Appendix E). Within a few weeks of receiving a qualifying principal survey the researcher emailed the teacher recruitment letter to the building principal. Principals were asked to forward the teacher recruitment letter to all elementary teachers in grades K-5 responsible for implementing the Common Core Standards. The teacher recruitment letter identified the purpose of the research, procedures for participation, the four research questions, contact information for the researcher and her dissertation advisor as well as a direct link to the teacher survey, with the consent letter embedded into the survey.

Principals were initially sent two reminder letters requesting that they forward the teacher recruitment letter to all qualifying teachers. Due to a low response rate from teachers (four teacher surveys as of February 28, 2017), the researcher was granted approval to revise the email sent to principals regarding teacher recruitment as well as the recruitment letter forwarded to teachers from their principal. Specific revisions include: (1) principals were provided a sample introduction for their use when emailing teachers, (2) a requested completion date was included in the teacher recruitment letter allowing teachers approximately three weeks to complete the survey, and (3) a brief introduction of the research with a link to the teacher survey was included directly above the existing, comprehensive explanation of the research study. Up to three additional reminder letters
were sent to principals between February 28, 2017, and May 17, 2017, requesting that they forward the teacher recruitment letter to all qualifying teachers.

The researcher received an additional seventeen qualifying teacher surveys by the end of April. When the survey link was closed in June 2017, a total of 34 teachers gave consent and initiated the teacher survey. Of these, 23 were completed and met the criteria set forth by this researcher (n=23). Figure 4 demonstrates the identification of the survey population for qualifying teacher participants.

Figure 4. Identification of the Survey Population for Qualifying Teacher Participants

Final inclusion in this research was dependent upon the completion of a qualifying principal survey and a minimum of five completed qualifying teacher surveys from the same elementary school. Based on the criteria for participation established by the researcher it was determined that three schools (n=3) and 19 teachers (n=19) would be included in this research, which represents 11% of the schools that participated in the principal and teacher surveys.
Data Presentation

Data will be displayed in the following areas:

1. Demographics
2. Statement Responses
   a. Human Capital
   b. Social Capital
   c. Decision Making Capital
   d. Resources and leadership models developed by the Kentucky Department of Education
3. School Data Summaries
   a. School One
   b. School Two
   c. School Three
4. Summary

Demographic Information

Each of the three qualifying schools has teachers at the following grade levels: kindergarten, first, second, third, fourth and fifth grades. However, teacher participants are not representative of all grade levels. Table 2 shows the specific grade levels of the 19 (n=19) qualifying teachers at each school included in this research. The largest number of respondents is from school three, with a total of eight teacher respondents (n=8). Teacher respondents at school three include one kindergarten, two second grade, one third grade, two fourth grade and two fifth grade teachers. School two has the second
largest number of respondents with a total of six (n=6). Teacher respondents include one kindergarten, two second grade, two third grade and one fifth grade teacher. The school with the fewest number of teacher respondents is school one. School one has five respondents, including two kindergarten teachers and one each from third, fourth and fifth grades.

Table 2

*Grade Level Representation of Teacher Participants by School (n=19)*

<table>
<thead>
<tr>
<th>School</th>
<th>Kindergarten</th>
<th>1st Grade</th>
<th>2nd Grade</th>
<th>3rd Grade</th>
<th>4th Grade</th>
<th>5th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>School 2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>School 3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>0</strong></td>
<td><strong>4</strong></td>
<td><strong>4</strong></td>
<td><strong>3</strong></td>
<td><strong>4</strong></td>
</tr>
</tbody>
</table>

As displayed in Table 3, each of the principals has served at their current school for 3-5 years. However, the length of time each has worked in elementary education varies slightly, as reflected in Table 3. The principals in both school one and school two have worked in elementary education for 4-5 years (n=2) and the principal of school three has worked in elementary education for six or more years (n=1). In developing a profile for each principal the researcher determined that years in elementary education provided background on each principal participants’ implementation of elementary level standards. The researcher finds it necessary to view this profile against both the principal and teachers’ perception of the leadership behaviors demonstrated to develop the professional capital of teachers, when implementing the Common Core.
Table 3

*Number of Years Each Principal Has Served as the Principal of the Identified School and the Principal’s Total Number of Years Working in Elementary Education (n=3)*

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Years Working as Principal of the Identified School</th>
<th>Total Number of Years Working in Elementary Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>3-5 Years</td>
<td>4-5 Years</td>
</tr>
<tr>
<td>School 2</td>
<td>3-5 Years</td>
<td>4-5 Years</td>
</tr>
<tr>
<td>School 3</td>
<td>3-5 Years</td>
<td>6 or More Years</td>
</tr>
</tbody>
</table>

Amongst other criteria for teacher participation, all teachers are required to have worked with their principal for at least one year to be considered in the sample for this research. Table 4 displays information regarding the length of time each teacher has worked with their building principal and Table 5 displays information regarding the number of years each of the nineteen teacher participants (n=19) has worked in elementary education. Teacher respondents identified the length of time they have worked alongside their principal from the following categories: 1 year, 2-3 years, 4-5 year or 6 or more years. As represented in Table 4, none of the teacher respondents has worked with their principal for more than five years. The researcher was also interested in the length of service in elementary education, to develop a profile of each teacher participant and their background in implementing elementary level standards, as displayed in Table 5. The following categories were used to ascertain this information: 1 year, 2-3 years, 4-5 year or 6 or more years. Two teachers have worked in elementary education for just 1 year (n=2), 5 (n=5) have worked in elementary education for 2-3 years, and 12 (n=12) of the teacher participants have worked in elementary education for six or more years, as represented in Table 5.
Table 4

*Number of Years Each Teacher Has Worked with the Principal of the Identified School (n=19)*

<table>
<thead>
<tr>
<th></th>
<th>1 Year</th>
<th>2-3 Years</th>
<th>4-5 Year</th>
<th>6 or More Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>School One (n=5)</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>School Two (n=6)</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School Three (n=8)</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total (n=19)</strong></td>
<td><strong>4</strong></td>
<td><strong>12</strong></td>
<td><strong>2</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

Table 5

*Teacher’s Total Number of Years Working in Elementary Education (n=19)*

<table>
<thead>
<tr>
<th></th>
<th>1 Year</th>
<th>2-3 Years</th>
<th>4-5 Year</th>
<th>6 or More Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>School One (n=5)</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>School Two (n=6)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>School Three (n=8)</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total (n=19)</strong></td>
<td><strong>2</strong></td>
<td><strong>5</strong></td>
<td><strong>0</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

The researcher looked to explore any relationships that might exist between the length of service with their current principal, the length of service in elementary education and the teacher participants’ perception of how their principal created positive conditions for change, to develop the professional capital of teachers during the implementation of Common Core.
The graphs, in Figure 5, show the gender of the three (n=3) principal participants as well as the gender of all teacher participants (n=19). All three (n=3) of the principals are female. The vast majority of qualifying teachers are female (n=18) with only one male teacher represented (n=1). Males and females are not equally represented in this research study.

![Gender of Principal Participants](image1)

![Gender of Teacher Participants](image2)

*Figure 5. Gender of Principal Participants (n=3) and Teacher Participants (n=19)*

As depicted in Figure 6, similar to the gender composition for both the principal and teacher participants, there is little equity in regards to the representation of the participants by race. Each of the three principal participants (n=3) has identified their race as Caucasian/white. Eighteen of the 19 teachers identify himself as Caucasian/white (n=18) with one participant identifying him or herself as multiracial (n=1).
Figure 6. Race of Principal Participants (n=3) and Teacher Participants (n=19)

Qualifying schools represent both rural and urban communities. Figure 7 illustrates the type of community each of the three qualifying schools (n=3) is located in. As shown above, two of the schools are located in an urban community and one is located in a rural community.

Figure 7. Type of School: Rural, Urban or Suburban
Statement Responses

According to Hall and Hord (2011), the leadership of principals is critical to the successful implementation of educational reform initiatives and crucial for the successful implementation of the Common Core State Standards. The researcher looked to identify leadership behaviors of elementary school principals, from Kentucky, that have supported conditions for positive change during Common Core implementation.

Research was rooted in the conceptual framework of Hargreaves and Fullan’s (2012) work on building professional capital as explained in their book, Professional capital: Transforming teaching in every school. Specific behaviors of principals were examined in relationship to the development of each aspect of professional capital, which includes human, social and decision making capital. According to Fullan and Hargreaves (2012), human capital refers to the quality of teachers based on their skills, knowledge and ability. Social capital increases each teacher’s knowledge and skills by providing opportunities for teachers to access to the human capital (skills and knowledge) of other staff members and decision making capital, which refers to the decision making of teachers related to all aspects of student learning.

The second section of the principal survey, which followed questions related to participant demographics, was developed to identify the extent to which principals believe they engaged in specific leadership practices that created conditions for change, within the context of developing the professional capital of their teachers. The statements posed were based on leadership behaviors identified by Hargreaves and Fullan (2012) that promote the development of professional capital during the implementation of
Common Core. A comprehensive teacher survey mirrored that of the principal and contained nineteen corresponding statements or questions aligned to those on the principal survey. Teacher participants were asked to report the degree to which they perceived that their principal created conditions for change within the context of developing their professional capital, comprised of human, social and decision making capital. A Likert scale was utilized for the 19 closed questions, allowing respondents to determine their level of agreement with each survey question.

Both surveys contained five closed questions in the area of human capital, seven in the area of social capital and five in the area of decision making capital. The final two closed questions referenced specific aspects of principal leadership in regards to the use of resources and leadership models developed by the Kentucky Department of Education. The closed questions were followed by one open-ended question, which provided an opportunity for all participants to provide additional information regarding either their leadership or that of their principal that was not covered in the questions developed by the researcher.

For purposes of data analysis, the researcher converted each participant’s answers to a number, as demonstrated in Table 6.

Table 6

*Response Values*

<table>
<thead>
<tr>
<th>Response</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Agree</td>
<td>3</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>4</td>
</tr>
</tbody>
</table>
Converting the respondents’ answers to numbers allowed the researcher to find the mean score for each question, for all of the teacher participants for a particular school, demonstrating the collective perception of principal leadership on each of the 19 closed questions. In addition, the individual responses of each teacher will be shared. This Data will be displayed in side by side graphs allowing the researcher to simultaneously view the principal responses and the teacher responses for each survey question. Data for all closed questions will be displayed in the following areas: human capital, social capital, decision making capital and use of resources and leadership models developed by the Kentucky Department of Education.

**School One Survey Results**

**Human Capital**

Survey questions 12-16 on the principal survey and 10-14 on the teacher survey focused on the development of human capital. Human capital refers to the quality of teachers based on cumulative skills, knowledge and ability, developed through training and experience (Hargreaves & Fullan, 2012; Leana, 2011; Pil & Leana, 2009). Human capital includes knowledge of subject matter, pedagogy, and an understanding of children and how they learn. When developing human capital principals must hire high quality teachers and cultivate their skills through ongoing professional development and feedback in a collaborative school environment (Fullan 2014; Hargreaves & Fullan, 2012; Leana, 2011). Survey questions aligned to human capital were developed as a means of understanding specific behaviors of principals who created positive conditions for change, during the implementation of the Common Core, by hiring high quality
teachers and developing their skills through ongoing professional development and feedback.

Figure 8 displays data that represents the degree to which the principal and teachers from school one believe the principal carves out time to provide teachers with individual mentoring and coaching regarding their practice. As shown in Figure 8, the principal disagrees with the statement, “I have consistently carved out time to provide teachers with individual mentoring and coaching regarding their practice.” However, four of the five teachers (n=4) indicate that they agree or strongly agree with the corresponding statement, “My principal has consistently carved out time to provide me with individual mentoring and coaching regarding my practice,” with one teacher (n=1) disagreeing with this statement. The mean score for the five teachers at school one is a 3.2 suggesting overall agreement in regards to the principal providing individual mentoring and coaching to her teachers.
Figure 8. Perception of the degree to which principal one has carved out time to provide teachers with individual mentoring and coaching regarding their practice.

As depicted in Figure 9, the principal agrees with the statement, “I have supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations.” In regards to teacher agreement related to principal support for developing the teacher’s knowledge and skills based on observations, the majority of teachers (n=4) indicate agreement or strong agreement in response to the statement, “My principal has supported me in developing knowledge and skills related to the content that I teach based on his/her formal and informal observations.” One teacher disagrees with this statement. However, the mean score, as shown in Figure 9, is 3.2, suggesting overall agreement amongst the teachers.
Figure 9. Perception of the degree to which principal one has supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations.

Figure 10 displays data in regards to the extent to which the principal and teachers perceive that the principal has hired and maintained a high quality staff. Specifically, the principal agrees with the statement, “I have maintained a high quality teaching staff,” and the teachers (n=5) all agree or strongly agree with the corresponding statement, “My principal has hired and maintained a high quality teaching staff.” Consistent with the previous two statements the teachers’ mean score is a 3.2, indicating general agreement with the statement pertaining to the principal’s hiring of and maintaining of quality teachers.
Figure 10. Perception of the degree to which principal one has maintained a high quality teaching staff

The principal from school one agrees with the statement, “I have invested in the individual growth and professional development of my teaching staff.” The mean score for the five teachers (n=5) is a 3.2, indicating overall agreement between the teachers for the statement, “My principal has invested in my individual growth and professional development.” Four of the five teachers (n=4) demonstrate that they agree or strongly agree with the statement and one teacher, (n=1) shows that they disagree with the above statement.
**Figure 11.** Perception of the degree to which principal one has invested in the individual growth and professional development of the teaching staff

Data in Figure 12 displays the degree to which the principal and the teachers agree with statements pertaining to the principal creating conditions for change by providing continuous feedback to teachers. The principal agrees with the statement, “By providing teachers with continuous feedback outside of the formal evaluation process I have created conditions for change.” Teachers generally agree with the following statement, “By providing me with continuous feedback outside of the formal evaluation process my principal has created conditions for change,” as indicated by a mean score of 3.0. Data demonstrates that four (n=4) of the teachers agree or strongly agree with the statement above and one (n=1) disagrees.
Figure 12. Perception of the degree to which principal one has provided teachers with continuous feedback outside of the formal evaluation process to create conditions for change

Social Capital

Survey questions 17-23 on the principal survey and questions 15-21 on the teacher survey center on the concept of developing social capital. Fullan (2014) shares that social capital is conveyed through the interactions and relationships that support a common cause within a school. Moving beyond the capacity of individual teachers (human capital), social capital relates to the quality and quantity of the relationships among teachers that supports the development of human capital (Comer, 2015; Fullan, 2014; Hargreaves & Fullan, 2012). Social capital improves the skills of all teachers within the school setting by providing them with access to the human capital, or talents and expertise of others.
When examining perceptions related to shared vision building on the part of principal one, Figure 13 illustrates that the principal agrees with the statement, “I have included multiple stakeholders in developing a shared vision.” The teachers generally show agreement with the statement, “My principal has included multiple stakeholders in the development of a shared vision.” The mean score for the teachers is 3.2 with four (n=4) indicating agreement or strong agreement and one (n=1) indicating disagreement.

![Graph](image1.png)

*Figure 13. Perception of the degree to which principal one has included multiple stakeholders in developing a shared vision*

Data in Figure 14 displays the extent to which the principal agrees or disagrees with the statement, “When looking for ways to innovate, grow and change I focus on my own school and district for ideas and resources.” Principal one agrees with this statement which is mirrored by agreement amongst the teachers, all of whom (n=5) either agree or strongly agree with the statement, “When looking for ways to innovate, grow and change.
my principal has focused primarily on our school and district for ideas and resources.”

The mean for this statement is 3.4.

<table>
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<th>Teacher 1</th>
<th>Teacher 2</th>
<th>Teacher 3</th>
<th>Teacher 4</th>
<th>Teacher 5</th>
<th>Mean Score</th>
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<td>3</td>
<td>3</td>
<td>4</td>
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</tr>
</tbody>
</table>

1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree

**Figure 14.** Perception of the degree to which principal one has looked primarily at the school, as opposed to the district, for ideas and resources regarding innovation, growth and change

Figure 15 displays data that demonstrates agreement on the part of the principal and all teacher participants as it relates to the statements about the principal providing opportunities for teacher collaboration in the areas of student needs, instruction, planning and assessment. The principal agrees with the statement, “I have provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.” Teachers also show agreement with the corresponding survey question, with four teachers (n=4) agreeing with the statement, “My principal has provided frequent opportunities for teachers to work collaboratively
and engage in discourse about students, instruction, planning and assessment,” and one (n=1) expressing strong agreement. The mean score for teachers (n=5) is 3.2.

**Figure 15.** Perception of the degree to which principal one has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.

![Graph showing principal 1's perception](image)

The data presented in Figure 16 shows that principal one agrees with the statement, “I cultivate positive and trusting relationships with and between staff members.” The level of teacher agreement pertaining to the statement, “My principal cultivates positive and trusting relationships with and between staff members” is varied, ranging from strongly agree to strongly disagree. Three teachers (n=3) show either agreement or strong agreement and two (n=2) show disagreement or strong disagreement with the statement above. A mean score of 2.6 is observed.
Figure 16. Perception of the degree to which principal one cultivates positive and trusting relationships with and between staff members

Figure 17 illustrates the degree to which participants perceive the principal as having built the individual capacity of teachers as compared to having built the collective capacity of teams of teachers. The principal disagrees with the statement, “I have focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.” Data from Figure 17 shows that teachers perceive the principal as having focused more attention on developing the individual teacher as compared to the group. Four of the five teachers (n=4) agree with the statement, “My principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers,” and one teacher (n=1) disagrees with the above statement. The mean score for teachers is 2.8.
Figure 17. Perception of the degree to which principal one has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.

Principal agreement with the statement, “I have facilitated teacher learning more often than directing it,” is illustrated in Figure 18. As depicted in Figure 18, teachers have differing perceptions as it relates to principal facilitation of teacher learning. Teacher responses to the statement, “My principal facilitates teacher learning more often than he/she directs the learning,” is inconsistent with three (n=3) teachers agreeing with the above statement and two (n=2) disagreeing. The overall mean score for teachers is 2.6.
There is general agreement for both the principal and the group of teacher participants in regards to principal one providing opportunities for teachers to receive feedback from colleagues and other administrators. The data in Figure 19 demonstrates that the principal agrees with the statement, “I have created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.” The mean score for teachers as it pertains to the statement, “My principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches,” is a 3.0, with four (n=4) teachers agreeing or strongly agreeing and one teacher (n=2) disagreeing with the statement.

*Figure 18. Perception of the degree to which principal one has facilitated teacher learning as compared to directing the learning*
Figure 19. Perception of the degree to which principal one has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches

**Decision Making Capital**

Survey questions that focused on decision making capital included numbers 24-28 on the principal survey and numbers 22-26 on the teacher survey. Decision making capital centers on the daily decisions and judgments made by both individuals and groups of teachers to support teaching and learning (Callingham et al., 2015; Fullan, 2014; Hargreaves & Fullan, 2012). Principals support decision making capital by fostering the development of human and social capital over time, with targeted professional development (Fullan, 2012).

Data displayed in Figure 20 illustrates the degree to which the principal and teachers perceive principal one as empowering teachers to make instructional judgments.
and decisions. The principal sees herself as someone who empowers teachers to make decisions as demonstrated by showing agreement with the statement, “I empower teachers to make decisions or judgments about their teaching practices and student learning.” The mean score for teachers in response to the statement, “My principal empowers me to make decisions or judgments about my teaching practices and student learning,” is 3.2, indicating overall agreement with this statement. Four (n=4) teachers agree or strongly agree with this statement and one (n=1) disagrees.

**Figure 20.** Perception of the degree to which principal one has empowered teachers to make decisions or judgments about their teaching practices and student learning

When responding to the statement, “I have provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g., instructional rounds, classroom observations),” principal one shows agreement, as illustrated in Figure 21. There is general agreement amongst the five teachers in response to the statement, “My
principal has provided me with opportunities to observe colleagues to better inform my decisions (e.g., instructional rounds, classroom observations).” The mean score is 2.6 as is illustrated in Figure 21, with four teachers (n=4) agreeing with this statement and 1 (n=1) strongly disagreeing.

![Figure 21](image)

*Figure 21. Perception of the degree to which principal one has provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g., instructional rounds, classroom observations)*

As illustrated in Figure 22 principal one disagrees with the statement, “I encourage teachers to reflect on their planning, instruction and assessments individually rather than making changes based on team decisions.” Data displayed in Figure 22 shows that there is a mean score of 2.8, for the teachers when they identify the extent to which they agree or disagree with this statement, “My principal encourages me to reflect on my planning, instruction and assessments as an individual rather than making changes based
on team decisions.” The teachers’ responses range from strongly agree (n=1) to disagree (n=2), with two teachers (n=2) showing agreement with the statement above.

![Figure 22. Perception of the degree to which principal one has encouraged teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.](image)

Figure 23 displays data regarding the perception of principal one as it relates to the principal asking teachers to provide evidence of student learning. The principal and teachers exhibit general agreement regarding their perceptions. As shown in Figure 23, the principal agrees with the statement, “I have asked teachers to provide evidence that their teaching positively affected student learning,” and all five (n=5) teachers either agree or strongly agree with the statement, “My principal asks me to provide evidence that my teaching has positively affected student learning.” The mean score for the teachers is 3.2, depicting overall agreement for the statement above.
Figure 23. Perception of the degree to which principal one has asked teachers to provide evidence that their teaching positively affected student learning.

The data depicted in Figure 24 demonstrates the extent of agreement or disagreement as it pertains to the principal demonstrating respect for the judgement of her teachers. Principal one shows agreement with the statement, “I actively demonstrate my respect for the judgment of my teachers (e.g., by asking them questions instead of giving them answers).” The degree of agreement for the teachers is less than that of the principal when responding to the corresponding teacher statement, “My principal actively demonstrates his/her respect for my judgement (e.g., by asking me questions instead of giving me answers).” The mean score for the five teachers (n=5) is 2.6, as shown in Figure 24. Three of the teachers agree with the above statement (n=3) and two disagree (n=2).
Figure 24. Perception of the degree to which principal one actively demonstrates respect for the judgment of teachers

Use of Resources and Leadership Models through the Kentucky Department of Education

The Kentucky Department of Education has developed the Continuous Instructional Improvement Technology System (CIITS) to support instruction and teacher development. As displayed in Figure 25, in response to the statement “I have created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling,” principal one disagrees with the statement. Teachers respond to the statement, “My principal has created opportunities for me to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling,” with
varying degrees of agreement, including three teachers who agree (n=3) with the above statement and two (n=2) who disagree. The mean score is 2.6.

\[\text{Figure 25. Perception of the degree to which \textit{principal one} created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling.}\]

The data displayed in Figure 26 demonstrates the extent to which participants agree or disagree that principal one participated in the district’s leadership network and/or supported teachers in participating in the network. The principal demonstrates agreement with the statement, “I participated in and/or supported teacher participation in our district’s leadership network to build capacity and support the professional learning of my staff.” Teachers generally demonstrate agreement with the corresponding question, “My principal participated in our district's leadership network and/or supported teacher participation to build capacity and support the professional learning of our staff,” with a

\[\text{Figure 26. Perception of the extent to which participants agree or disagree that principal one participated in the district’s leadership network and/or supported teachers in participating in the network.}\]
mean score of 2.8. Four (n=4) of the teachers agree with the statement above and one (n=1) disagrees.

**Figure 26.** Perception of the degree to which principal one participated in and/or supported teacher participation in our district’s leadership network to build capacity and support the professional learning of my staff.

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**School Two Survey Results**

**Human Capital**

Human capital focuses on the qualifications and expertise of individual teachers. Principals build human capital by hiring and developing high quality teachers (Fullan 2014; Hargreaves & Fullan, 2012; Leana, 2011).

Figure 27 displays data that represents the degree to which the principal and teachers believe principal two has carved out time to provide teachers with individual mentoring and coaching regarding their practice. As shown in Figure 27, the principal
strongly agrees with the statement, “I have consistently carved out time to provide teachers with individual mentoring and coaching regarding their practice.” Four of the six teachers (n=4) indicate that they strongly agree with the corresponding statement, “My principal has consistently carved out time to provide me with individual mentoring and coaching regarding my practice,” with two teachers (n=2) agreeing with this statement. The mean score for the six teachers (n=6), as presented in Figure 27, is 3.7, suggesting overall high levels of agreement in regards to the principal carving out time for individual teacher mentoring and coaching.

Figure 27. Perception of the degree to which principal two has carved out time to provide teachers with individual mentoring and coaching regarding their practice

As depicted in Figure 28, principal two strongly agrees with the statement, “I have supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations.” In regards to teacher agreement
associated with principal support for developing the teacher’s knowledge and skills based on observations, all of the teachers (n=6) indicate agreement or strong agreement in response to the statement, “My principal has supported me in developing knowledge and skills related to the content that I teach based on his/her formal and informal observations.” The mean score, as shown in Figure 28, is 3.7, suggesting overall agreement amongst the teachers.

Figure 28. Perception of the degree to which principal two has supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations.

Figure 29 displays data for the extent to which participants agree or disagree that the principal of school two has hired and maintained a high-quality staff. Specifically, the principal strongly agrees with the statement, “I have maintained a high quality teaching staff” and the teachers (n=6) agree or strongly agree with the corresponding
statement, “My principal has hired and maintained a high quality teaching staff.” The teachers’ mean score is 3.5, indicating agreement with the statement pertaining to the principal’s hiring and maintaining high quality teachers.

**Figure 29.** Perception of the degree to which principal two has maintained a high quality teaching staff

The principal from school two strongly agrees with the statement, “I have invested in the individual growth and professional development of my teaching staff.” As displayed in Figure 30 the mean score for the six teacher participants is 3.8, showing high levels of agreement between the teachers for the statement, “My principal has invested in my individual growth and professional development.” Five teachers (n=5) express that they strongly agree with the statement above and one teacher, (n=1) indicates that they agree with the above statement.
Figure 30. Perception of the degree to which principal two has invested in the individual growth and professional development of the teaching staff.

Data in Figure 31 displays the extent to which the principal and the teachers agree with statements pertaining to principal two creating conditions for change by providing continuous feedback to teachers. The principal strongly agrees with the statement, “By providing teachers with continuous feedback outside of the formal evaluation process I have created conditions for change.” Teachers show overall agreement with the following statement, “By providing me with continuous feedback outside of the formal evaluation process my principal has created conditions for change,” as demonstrated by a mean score of 3.7. Data from Figure 31 demonstrates that four (n=4) of the teachers strongly agree with the statement above and two (n=2) agree.
Perception of the degree to which principal two has provided teachers with continuous feedback outside of the formal evaluation process to create conditions for change.

**Social Capital**

Social capital enables teachers to learn from each other by building collaboration, trust, communication and learning within teams (Comer, 2015; Fullan, 2014; Hargreaves & Fullan, 2012; Leana, 2011).

When examining perceptions related to shared vision building on the part of principal two, Figure 32 illustrates that the principal strongly agrees with the statement, “I have included multiple stakeholders in developing a shared vision,” suggesting that she perceives this as a strength. The majority of teachers (n=4) generally share strong agreement with the corresponding statement, “My principal has included multiple stakeholders in the development of a shared vision,” and two teachers (n=2) express
agreement with the statement above. The mean score for the teachers is 3.7, which is displayed in Figure 32.

![Figure 32](image)

*Figure 32. Perception of the degree to which principal two has included multiple stakeholders in developing a shared vision*

Data in Figure 33 displays the extent to which the principal agrees or disagrees with the statement, “When looking for ways to innovate, grow and change I focus on my own school and district for ideas and resources.” Principal two agrees with this statement. Agreement exists amongst the teachers, all of whom (n=6) either agree or strongly agree with the statement, “When looking for ways to innovate, grow and change my principal has focused primarily on our school and district for ideas and resources.” The mean for this statement is 3.7, supporting high levels of agreement.
Figure 33. Perception of the degree to which principal two has looked primarily at the school, as opposed to the district, for ideas and resources regarding innovation, growth and change.

Figure 34 presents data that demonstrates overall strong agreement on the part of the principal and the majority (n=5) of teacher participants, as it relates to the statements about the principal providing opportunities for teacher collaboration in the areas of student needs, instruction, planning and assessment. The principal strongly agrees with the statement, “When looking for ways to innovate, grow and change I have provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.” Teachers also show general agreement, according to Figure 34, with five teachers (n=5) strongly agreeing with the statement, “My principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment,” and one
(n=1) expressing agreement. The mean score for teachers (n=6) is 3.8.

**Figure 34.** Perception of the degree to which principal two has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.

The data presented in Figure 35 shows that the principal strongly agrees with the statement, “I cultivate positive and trusting relationships with and between staff members.” Teacher agreement exists with the corresponding statement, “My principal cultivates positive and trusting relationships with and between staff members” and has a mean score of 3.5. Three teachers (n=3) show strong agreement and three (n=3) show agreement with the above statement.
**Figure 35.** Perception of the degree to which principal two cultivates positive and trusting relationships with and between staff members

Figure 36 illustrates the degree to which participants perceive principal two as having built the individual capacity of teachers as compared to having built the collective capacity of teachers. The principal agrees with the statement, “I have focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.” Data from Figure 36 shows that teachers generally perceive the principal as having focused more attention on developing the individual teacher as compared to the group. One teacher (n=1) indicates strong agreement with the statement, “My principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers,” four of the six teachers (n=4) agree with the statement, and one teacher (n=1) disagrees with the statement. The mean score for teachers is 3.0.
Figure 36. Perception of the degree to which principal two has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.

Principal agreement with statement, “I have facilitated teacher learning more often than directing it,” is illustrated in Figure 37. Teachers display general agreement regarding their perceptions as it relates to principal facilitation of teacher learning, which is shown in Figure 37 as well. Teacher responses to the statement, “My principal facilitates teacher learning more often than he/she directs the learning,” include four (n=4) teachers agreeing with the above statement and two (n=2) strongly agreeing with the statement. The overall mean score for teachers, as presented in Figure 37, is 3.3.
Figure 37. Perception of the degree to which principal two has facilitated teacher learning as compared to directing the learning.

There is general agreement for both the principal and group of teacher participants in regards to principal two providing opportunities for teachers to receive feedback from colleagues and other administrators. Data from Figure 38 demonstrates that the principal strongly agrees with the statement, “I have created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.” The mean score for teachers as it pertains to the statement, “My principal facilitates teacher learning more often than he/she directs the learning,” is 3.2, with two (n=2) teachers strongly agreeing, three (n=3) agreeing and one (n=1) disagreeing, with the statement.
Figure 38. Perception of the degree to which principal two has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.

Decision Making Capital

Decision making capital is a teacher’s ability to make professional judgments (Fullan, 2014; Hargreaves & Fullan, 2012; Hargreaves & Fullan, 2013). Decision making is best supported when individual decision making and decisions made by groups is encouraged and centers on the experiences, practices and reflections that accumulate over time. The capacity to make good decisions stems from both human and social capital and is supported with practice, mentoring, coaching and inquiry (Hargreaves, 2015b).

Data displayed in Figure 39 illustrates the degree to which the principal and teachers perceive principal two as empowering teachers to make instructional judgments and decisions. The principal sees herself as someone who empowers teachers to make
decisions as demonstrated by her strong agreement with the statement, “I empower teachers to make decisions or judgments about their teaching practices and student learning.” The mean score for teachers in response to the statement, “My principal empowers me to make decisions or judgments about my teaching practices and student learning,” is 3.7, indicating overall high levels of agreement with this statement. Four (n=4) teachers strongly agree with this statement and two (n=2) agree.

![Figure 39](image.png)

*Figure 39.* Perception of the degree to which principal two has empowered teachers to make decisions or judgments about their teaching practices and student learning.

When responding to the statement, “I have provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g. instructional rounds, classroom observations),” principal two shows agreement, as illustrated in Figure 40. There is general agreement amongst the six teachers in response to the corresponding statement, “My principal has provided me with opportunities to observe colleagues to
better inform my decisions (e.g. instructional rounds, classroom observations).” The mean score is 3.0 and, as illustrated in Figure 40, one teacher (n=1) strongly agrees, four teachers (n=4) agree and one (n=1) disagrees with this statement.

**Figure 40.** Perception of the degree to which principal two has provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g., instructional rounds, classroom observations)

As illustrated in Figure 41, principal two strongly agrees with the statement, “I encourage teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.” Data displayed in Figure 41 demonstrates complete alignment between the principal and teacher participants. Figure 41 shows the extent to which teachers agree or disagree with this statement, “My principal encourages me to reflect on my planning, instruction and assessments as an individual rather than making changes based on team decisions.” All six (n=6) strongly
agree with the above statement with a mean score of 4.0.

![Histograms showing agreement levels](image)

**Figure 41.** Perception of the degree to which principal two has encouraged teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.

Figure 42 displays data regarding the perception of principal two as it relates to the principal asking teachers to provide evidence of student learning. The principal and teachers show strong agreement regarding this idea. As represented in Figure 42, the principal strongly agrees with the statement, “I have asked teachers to provide evidence that their teaching positively affected student learning,” and all six (n=6) teachers strongly agree with the corresponding statement, “My principal asks me to provide evidence that my teaching has positively affected student learning.” The mean score for the teachers is 4.0.
Figure 42. Perception of the degree to which principal two has asked teachers to provide evidence that their teaching positively affected student learning.

The data depicted in Figure 43 demonstrates the degree of agreement or disagreement as it pertains to the principal demonstrating respect for the judgement of the teachers. Principal two indicates agreement with the statement, “I actively demonstrate my respect for the judgment of my teachers (e.g., by asking them questions instead of giving them answers).” Teachers generally agree with the corresponding statement, “My principal actively demonstrates his/her respect for my judgement (e.g., by asking me questions instead of giving me answers),” with a mean score of 3.5, as demonstrated in Figure 43. Data displayed indicates that three (n=3) teachers strongly agree and three teachers (n=3) agree with the statement above.
Figure 43. Perception of the degree to which principal two actively demonstrates respect for the judgment of teachers

Use of Resources and Leadership Models through the Kentucky Department of Education

As displayed in Figure 44, principal two strongly disagrees with the statement, “I have created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling.” Conversely, teachers responded to the corresponding statement, “My principal has created opportunities for me to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling,” with overall agreement, with three teachers who strongly agree (n=3) with the above statement and three (n=3) who agree. The mean score is 3.5.
Figure 44. Perception of the degree to which principal two created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling.

The data displayed in Figure 45 demonstrates the extent to which participants agree or disagree that principal two participates in the district’s leadership network and/or supports teachers in participating in the network. The principal demonstrates strong agreement with the statement, “I participated in and/or supported teacher participation in our district’s leadership network to build capacity and support the professional learning of my staff.” Teachers generally demonstrate high levels of agreement with their corresponding question, “My principal participated in our district's leadership network and/or supported teacher participation to build capacity and support the professional learning of our staff,” with a mean score of 3.7. Four (n=4) of the teachers strongly agree with the statement above and two (n=2) agree.
Figure 45. Perception of the degree to which principal two participated in and/or supported teacher participation in our district's leadership network to build capacity and support the professional learning of staff.

School Three Survey Results

Human Capital

Human capital refers to the quality of teachers and is driven by the recruitment of talented teachers and the development of a teacher’s skills and talents over time (Consortium for Policy Research in Education, 2009; Fullan, 2014; Hargreaves & Fullan, 2012). Human capital focuses on the development of knowledge and skills of individual teachers.

Figure 46 displays data that represents the degree to which the principal and teachers at school three believe the principal has carved out time to provide teachers with individual mentoring and coaching regarding their practice. As shown in Figure 46, the
principal strongly agrees with the statement, “I have consistently carved out time to provide teachers with individual mentoring and coaching regarding their practice.” Data presented in Figure 46 suggests overall high levels of agreement by the teachers in regards to the principal carving out time for individual mentoring and coaching. Five of the eight teachers (n=8) indicate that they strongly agree with the statement, “My principal has consistently carved out time to provide me with individual mentoring and coaching regarding my practice,” with three teachers (n=3) agreeing with this statement. The mean score of the eight teachers (n=8), as presented in Figure 46, is 3.6.

Figure 46. Perception of the degree to which principal three has carved out time to provide teachers with individual mentoring and coaching regarding their practice.

As depicted in Figure 47, the principal agrees with the statement, “I have supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations.” In regards to teacher agreement,
associated with principal support for developing the teacher’s knowledge and skills based on observations, the vast majority of teachers (n=7) demonstrate strong agreement in response to the statement, “My principal has supported me in developing knowledge and skills related to the content that I teach based on his/her formal and informal observations,” with one teacher (n=1) agreeing with the above statement. The mean score, as shown in Figure 47, is 3.9.

**Figure 47.** Perception of the degree to which principal three has supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations

Figure 48 displays data for the extent to which participants agree or disagree that the principal of school three has hired and maintained a high quality staff. Specifically, the principal strongly agrees with the corresponding statement, “I have maintained a high quality teaching staff.” The vast majority of teachers (n=7) strongly agree with the
corresponding statement, “My principal has hired and maintained a high quality teaching staff,” as is represented by a mean teacher score of 3.9. One teacher (n=1) indicates that they agree with the statement above pertaining to the principal’s hiring and maintaining quality teachers.

![Graph showing perception of principal's role in maintaining teaching staff quality](image)

Figure 48. Perception of the degree to which principal three has maintained a high quality teaching staff

The principal from school three strongly agrees with the statement, “I have invested in the individual growth and professional development of my teaching staff.” As displayed in Figure 49, the mean score for the eight teacher participants is 3.9, showing high levels of strong agreement amongst the teachers for the statement, “My principal has invested in my individual growth and professional development.” There is also a high level of alignment between the principal and teachers. Seven teachers (n=7) express that they strongly agree with the statement and one teacher (n=1) indicates that they agree
with the above statement.

Figure 49. Perception of the degree to which principal three has invested in the individual growth and professional development of the teaching staff

Data in Figure 50 displays the extent to which the principal and the teachers agree with statements pertaining to the principal creating conditions for change by providing continuous feedback to teachers. The principal from school three agrees with the statement, “By providing teachers with continuous feedback outside of the formal evaluation process I have created conditions for change.” Teachers show overall high levels of strong agreement with the following statement, “By providing me with continuous feedback outside of the formal evaluation process my principal has created conditions for change,” as indicated by a mean score of 3.9. Data from Figure 50 demonstrates that seven (n=7) of the teachers strongly agree with the statement above and one (n=1) agrees.
Perception of the degree to which principal three has provided teachers with continuous feedback outside of the formal evaluation process to create conditions for change.

Social Capital

Social capital is conveyed through the interactions and relationships among people and serves as a resource when members benefit from the expertise of others with whom they interact (Coleman, 1988; Hargreaves & Fullan, 2012; Penuel et al., 2011). Social capital is supported by providing teachers with the resources such as time, space, and staffing.

When examining perceptions related to shared vision building on the part of principal three, Figure 51 illustrates that the principal strongly agrees with the statement, “I have included multiple stakeholders in developing a shared vision,” suggesting that this is an area of strength. The vast majority of teachers (n=7) share strong agreement.
with the corresponding statement, “My principal has included multiple stakeholders in the development of a shared vision.” One teacher (n=1) indicates agreement with the statement above. The mean score for the teachers is 3.9, which is displayed in Figure 51.

**Figure 51.** Perception of the degree to which principal three has included multiple stakeholders in developing a shared vision

![Bar chart showing the perception of the principal three's inclusion of stakeholders](image)

Data in Figure 52 displays the extent to which the principal agrees or disagrees with the statement, “When looking for ways to innovate, grow and change I focus on my own school and district for ideas and resources.” Principal three agrees with this statement. General agreement exists amongst the teachers for the corresponding statement, “When looking for ways to innovate, grow and change my principal has focused primarily on our school and district for ideas and resources.” The mean score of the teachers for this statement is 3.4, as displayed in Figure 52, with four (n=4) teachers showing strong agreement, three (n=3) showing agreement and one (n=1) showing
disagreement with the statement.

Figure 52. Perception of the degree to which principal three has looked primarily at the school, as opposed to the district, for ideas and resources regarding innovation, growth and change

Figure 53 presents data that demonstrates overall strong agreement on the part of the principal and the majority (n=7) of teacher participants, as it relates to the statements about the principal providing opportunities for teacher collaboration in the areas of student needs, instruction, planning and assessment. The principal strongly agrees with the statement, “When looking for ways to innovate, grow and change I have provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.” Teachers also show strong agreement, according to Figure 53, with seven teachers (n=7) strongly agreeing with the statement, “My principal has provided frequent opportunities for teachers to work collaboratively
and engage in discourse about students, instruction, planning and assessment” and one (n=1) expressing agreement. The mean score for teachers (n=8) is 3.9.

![Graph showing perception of the degree to which principal three has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.]

**Figure 53.** Perception of the degree to which principal three has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.

The data presented in Figure 54 shows that the principal strongly agrees with the statement, “I cultivate positive and trusting relationships with and between staff members.” Teacher agreement with the corresponding statement, “My principal cultivates positive and trusting relationships with and between staff members” is also depicted in Figure 54. Strong alignment exists between the principal and the teachers. Strong agreement is demonstrated with a mean score of 3.9 for the teachers. Seven teachers (n=7) show strong agreement and one (n=1) shows agreement with the statement.
Figure 54. Perception of the degree to which principal three cultivates positive and trusting relationships with and between staff members

Figure 55 illustrates the degree to which participants perceive the principal as having built the individual capacity of teachers as compared to having built the collective capacity of teachers from school three. The principal strongly agrees with the statement, “I have focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers,” suggesting the principal perceives that she has developed individuals over groups and teams of teachers. Data from Figure 55 demonstrates disparity amongst the teachers. Three teachers (n=3) indicate strong agreement with the statement, “My principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers,” and one (n=1) indicates agreement. The remaining teachers (n=4) disagree with the statement. The mean score for teachers is 2.9.
Figure 55. Perception of the degree to which principal three has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.

Principal agreement with statement, “I have facilitated teacher learning more often than directing it,” is illustrated in Figure 56. Also depicted in Figure 56, teachers display overall agreement pertaining to their perceptions as it relates to principal facilitation of teacher learning. Responses range from disagree to strongly agree. Teacher responses to the statement, “My principal facilitates teacher learning more often than he/she directs the learning” include five (n=5) teachers strongly agreeing with the above statement and two (n=2) agreeing with the statement, with one (n=1) disagreeing. The overall mean score for the teachers, as presented in Figure 56, is 3.5.
Figure 56. Perception of the degree to which principal three has facilitated teacher learning as compared to directing the learning.

Data from Figure 57 demonstrates that principal three agrees with the statement, “I have created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.” The mean score for teachers as it pertains to the statement, “My principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches,” is a 4.0, demonstrating that all teachers (n=8) strongly agree with the statement above, suggesting that this is a perceived strength of the principal.
Figure 57. Perception of the degree to which principal three has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.

**Decision Making Capital**

Decision making capital focuses on the judgments and decisions professionals make rooted in their practice, experiences and reflection (Fullan, 2014; Hargreaves & Fullan, 2012). Decision making capital is also closely connected to social capital in that it is best developed through interactions and collaboration with colleagues.

Data displayed in Figure 58 illustrates the degree to which the principal and teachers perceive principal three as having empowered teachers to make instructional judgments and decisions. The principal sees herself as someone who empowers teachers to make decisions as demonstrated by showing agreement with the statement, “I empower teachers to make decisions or judgments about their teaching practices and student learning.” The mean score for teachers in response to the corresponding
statement, “My principal empowers me to make decisions or judgments about my teaching practices and student learning,” is 3.8, indicating overall high levels of agreement with this statement. Six (n=6) teachers strongly agree with this statement above and two (n=2) agree.

![Chart showing the perception of the degree to which principal three has empowered teachers to make decisions or judgments about their teaching practices and student learning.]

**Figure 58.** Perception of the degree to which principal three has empowered teachers to make decisions or judgments about their teaching practices and student learning.

When responding to the statement, “I have provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g., instructional rounds, classroom observations),” principal three shows agreement, as illustrated in Figure 59. There is general agreement amongst the eight teachers (n=8) in response to the statement, “My principal has provided me with opportunities to observe colleagues to better inform my decisions (e.g. instructional rounds, classroom observations).” The mean score for the teachers is 3.5, as illustrated in Figure 59, with four teachers (n=4) strongly agreeing.
and four teachers (n=4) agreeing with this statement.

**Figure 59.** Perception of the degree to which principal three has provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g., instructional rounds, classroom observations).

As illustrated in Figure 60, principal three strongly agrees with the statement, “I encourage teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.” Data displayed in Figure 60 demonstrates that when the teachers identify the extent to which they agree or disagree with this statement, “My principal encourages me to reflect on my planning, instruction and assessments as an individual rather than making changes based on team decisions,” the vast majority of teachers (n=7) strongly agree. The mean score is 4.0.
I encourage teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.

My principal encourages me to reflect on my planning, instruction and assessments as an individual rather than making changes based on team decisions.

**Figure 60.** Perception of the degree to which principal three has encouraged teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.

Figure 61 displays data regarding the perception of principal three as it relates to the principal asking teachers to provide evidence of student learning. The principal and teachers show overall agreement regarding this idea. As represented in Figure 61, the principal agrees with the statement, “I have asked teachers to provide evidence that their teaching positively affected student learning.” Six (n=6) teachers strongly agree with the corresponding statement, “My principal asks me to provide evidence that my teaching has positively affected student learning, and two (n=2) agree, with a mean score of 3.8.
**Figure 61.** Perception of the degree to which principal three has asked teachers to provide evidence that their teaching positively affected student learning.

The data depicted in Figure 62 demonstrates the extent of agreement or disagreement as it pertains to the principal demonstrating respect for the judgement of the teachers. Principal three indicates agreement with the statement, “I actively demonstrate my respect for the judgement of my teachers (e.g., by asking them questions instead of giving them answers).” Teachers mostly demonstrate strong agreement with the statement “My principal actively demonstrates his/her respect for my judgement (e.g., by asking me questions instead of giving me answers),” with a mean score of 3.8 as depicted in Figure 62. Data displayed indicates that seven (n=7) teachers strongly agree and one teacher (n=1) disagrees.
Figure 62. Perception of the degree to which principal three actively demonstrates respect for the judgment of teachers

Use of Resource and Leadership Models through the Kentucky Department of Education

As displayed in Figure 63, in response to the statement “I have created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling,” principal three strongly disagrees suggesting that she has not supported teachers in using the CIITS system. Teachers responded to the corresponding statement, “My principal has created opportunities for me to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling,” with varying degrees of agreement and disagreement with the majority of teachers disagreeing, suggesting that the most teachers do not perceive their principal as having supported their use of CIITS.
Two teachers strongly agree (n=2) with the above statement, one (n=1) agrees and five (n=3=5) disagree. The mean score, as represented in Figure 63, is 2.6.

![Bar Chart]

**Figure 63.** Perception of the degree to which principal three created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling.

The data displayed in Figure 64 demonstrates the extent to which participants agree or disagree that the principal participated in the district’s leadership network and/or supported teachers in participating in the network. The principal demonstrates agreement with the statement, “I participated in and/or supported teacher participation in our district’s leadership network to build capacity and support the professional learning of my staff.” Teachers generally demonstrate strong agreement with their corresponding statement, “My principal participated in our district's leadership network and/or supported teacher participation to build capacity and support the professional learning of
our staff,” with a mean score of 3.9. Seven (n=7) of the teachers strongly agree with the statement above and one agrees (n=2) agrees.

Figure 64. Perception of the degree to which principal three participated in and/or supported teacher participation in our district’s leadership network to build capacity and support the professional learning of staff

Summary of Data for All Schools

The following sections will summarize the data for all three schools, broken into the three components of professional capital, which includes human, social and decision making capital. Data is presented for the statements related to each component (human, social and decision making capital) for the principal and the teacher participants. The principal survey included five questions regarding human capital, seven regarding social capital and five that pertained to the development of decision making capital. The survey also included two statements focused on principal support in the use of resources and
leadership models developed by the Kentucky Department of Education. The teacher survey had a corresponding statement that mirrored each of the statements presented in the principal survey. Summary data for each school is presented in Figures 65-71. Statements included in these figures bring together the principal and corresponding teacher statements in a manner that maintains the integrity and fundamental meaning of each statement.

School One Summary

Human Capital

Figure 65 summarizes the five survey statements concerning the principal’s support and enhancement of her teachers’ human capital for school one. Human capital refers to the skills, knowledge, and talents of individual teachers. Figure 65 compares the extent to which the principal and teachers from school one agree or disagree with each statement pertaining to the development of the teachers’ human capital, by principal one.

As depicted in Figure 65, there is relative agreement between the principal and the teachers, based on the teachers’ mean score, for four of the five statements regarding human capital (B, C, D, and E). For each of the following statements the principal and teachers show relative alignment and agreement with the statements: B) “The principal has supported teachers in developing knowledge and skills related to the content that they teach based on his/her formal and informal observations,” C) “The principal has hired and maintained a high quality teaching staff,” D) “The principal has invested in the teachers' individual growth and professional development,” and E) “By providing teachers with continuous feedback outside of the formal evaluation process the principal
has created conditions for change.” The data for statement A) “The principal has consistently carved out time to provide teachers with individual mentoring and coaching regarding teacher practice,” indicates that there is a large discrepancy between the perception of the principal and the teachers. The principal disagrees with this statement, suggesting that she does not perceive herself as having provided teachers with individual mentoring and coaching. However, the mean for the teachers is 3.2, suggesting that the teachers generally perceive that their principal has provided them with individual coaching and mentoring.

![School 1 - Human Capital Summary](image)

**Figure 65.** Summary of Human Capital Responses for School One
Social Capital

Figure 66 summarizes the seven survey statements concerning the principal’s development of her teachers’ social capital at school one. Social capital refers to the frequency and quality of the relationships amongst staff and opportunities for teacher collaboration and sharing of information and ideas. The data in Figure 66 represents the extent to which the principal and teachers from school one, agree or disagree with each statement affecting the principal’s development of the teachers’ social capital.

**Figure 66. Summary of Social Capital Responses for School One**
The data in Figure 66 demonstrates overall agreement and alignment between the principal and teachers as it pertains to the degree to which the principal supports the development of social capital for the following statements: A) “The principal has included multiple stakeholders in the development of a shared vision,” B) “When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources,” C) “The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment,” D) “The principal cultivates positive and trusting relationships with and between staff members,” F) “The principal facilitates teacher learning more often than he/she directs the learning” and G) “The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.” In each of the statements above the principal’s score and the mean score for the five teachers (n=5) leans towards agreement, with the mean scores for the teachers ranging from 2.6-3.4.

There is, however, disagreement between the principal and the teachers regarding the extent to which the principal supported the social capital of teachers as presented in the data for statement: E) “The principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers. Data for statement E, demonstrates that there is disagreement between the principal and the teachers regarding the degree to which the principal supports individual teachers as compared to groups/teams of teachers. Principal one disagrees with statement E, suggesting that she perceives herself as having developed teams/groups of teachers
rather than individual teachers. The teachers, however, show general agreement with statement E, with a mean score of 2.8, implying that their perception is that the principal did not build collective capacity, but rather developed individual teachers.

**Decision Making Capital**

Figure 67 summarizes the five survey statements in regards to the principal’s support and development of her teachers’ decision making capital. Decision making capital refers to the judgments and decisions made by teachers regarding all aspects of their instruction. The data presented in Figure 67 compares the extent to which the principal and teachers from school one agree or disagree with each statement pertaining the principal’s development of her teachers’ decision making capital.

The data demonstrates that there is general alignment between the principal of school one and teachers of school one as to the extent of agreement or disagreement with the following statements: A) “The principal empowers teachers to make decisions or judgments about my teaching practices and student learning,” B) “The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g. instructional rounds, classroom observations),” D) “The principal asks teachers to provide evidence that their teaching has positively affected student learning,” and E) “The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers).” For each statement listed above the principal and teachers (n=5) show agreement with the statement, with the mean scores for the teachers ranging from 2.6-3.2.
The data, as displayed in Figure 67, suggests that there is disagreement as it pertains to statement C) “The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decisions.” The principal disagrees with statement C, suggesting that she does not perceive herself as encouraging individual teacher reflection over team decisions. On the contrary, the teachers generally agree with statement C, with a mean score of 2.8.

**Figure 67. Summary of Decision Making Capital Responses for School One**
Open Ended Responses

The researcher provided all principal and teacher participants the opportunity to share additional feedback through the use of an open ended response. The question posed to the principal was, “Is there any other information you would like to share regarding the leadership behaviors you displayed which contributed to creating conditions for change during the implementation of the Common Core Standards?” A corresponding question was asked of each teacher participant, “Is there any other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?” Neither the principal nor the five teachers (n=5) from school one elected to provide feedback through the open-ended response questions.

School Two Summary

Human Capital

Figure 68 summarizes the five survey statements concerning the principal two’s support as it pertains to the development of her teachers’ human capital. Human capital refers to the skills and knowledge of individual teachers and includes the hiring, development and retention of high quality teachers. Figure 68 compares the extent to which the principal and teachers from school two agree or disagree with each statement as it applies to the development of the teachers’ human capital, by the principal.
Figure 68. Summary of Human Capital Responses for School Two

As displayed by the data in Figure 68, there is general alignment and agreement between principal two and her teachers (n=6) as to the level of agreement and disagreement on all statements related to the principal’s development of human capital. For each of the following statements depicted in Figure 68, there is a high level of agreement on the part of the principal and the teachers, with the mean teacher scores ranging from 3.5-3.8: A) “The principal has consistently carved out time to provide teachers with individual mentoring and coaching regarding my practice,” B) “The principal has supported teachers in developing knowledge and skills related to the content that they teach based on his/her formal and informal observations,” C) “The principal has hired and maintained a high quality teaching staff,” D) “The principal has invested in the teachers’ individual growth and professional development,” E) “By providing teachers with continuous feedback outside of the formal evaluation process the principal has created conditions for change.”
hired and maintained a high quality teaching staff,” D) “The principal has invested in the teachers' individual growth and professional development,” and E) “By providing teachers with continuous feedback outside of the formal evaluation process the principal has created conditions for change.”

Social Capital

Figure 69 summarizes the survey statements regarding principal two’s development of her teachers’ social capital. Social capital includes the consistent practices implemented to enhance the relationships amongst teachers to support information sharing, a common vision and opportunities to learn from others. The data in Figure 69 represents the extent to which the principal and teachers from school two agree or disagree with each statement regarding the principal’s development of her teachers’ social capital.

The data shown in Figure 69 shows that for each statement regarding the development of social capital on the part of the principal, there is alignment as to the extent of agreement and disagreement with the statements, by both the principal and the teachers. For each statement the data indicates that participants show collective agreement or strong agreement with the following statements: A) “The principal has included multiple stakeholders in the development of a shared vision,” B) “When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources,” C) “The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment,” D) “The principal cultivates positive and trusting
relationships with and between staff members,” E) “The principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers,” F) “The principal facilitates teacher learning more often than he/she directs the learning,” and G) “The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.” The range of mean scores for the teachers is from 3 (agree) to 3.8 (strongly agree).

Figure 69. Summary of Social Capital Responses for School Two

### Decision Making Capital

Figure 70 summarizes the five survey statements in regards to the principal’s support and development of her teachers’ decision making capital at school two. Decision
making capital refers to the daily decisions made by teachers regarding all aspects of their instruction, assessment and student learning. The data shown in Figure 70 compares the extent to which the principal and teachers from school two agree or disagree with each statement pertaining the principal’s development of her teachers’ decision making capital.

**Figure 70. Summary of Decision Making Capital Responses for School Two**

Strong alignment exists between the data from the principal and the teacher participants pertaining to the extent of agreement for principal support as it relates to the development of decision making capital of teachers at school two. The principal and teachers show collective agreement or strong agreement for each of the following
statements referring to decision making capital: A) “The principal empowers teachers to make decisions or judgments about my teaching practices and student learning,” B) “The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g. instructional rounds, classroom observations),” C) “The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decision,” D) “The principal asks teachers to provide evidence that their teaching has positively affected student learning,” and E) “The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers).” The range of the mean scores for the teachers is from 3.0-4.0, supporting their general agreement of all decision making capital statements.

**Open Ended Responses**

The researcher used an open ended response question to allow both the principal and teacher participants the opportunity to share additional. The question posed to the principal was, “Is there any other information you would like to share regarding the leadership behaviors you displayed which contributed to creating conditions for change during the implementation of the Common Core Standards?” A similar question was asked of each teacher participant, “Is there any other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?”
The principal from school two did not elect to answer this question. Table 7 displays the response from one teacher participant who did elect to answer the open ended question.

Table 7

*School Two - Teacher Open Ended Response*

<table>
<thead>
<tr>
<th>“Is there any other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
</tr>
<tr>
<td>• She is very supportive and always there if you need her.</td>
</tr>
</tbody>
</table>

*School Three Summary*

**Human Capital**

Data summarizing the perception of the degree to which the principal from school three develops the human capital of her teachers is depicted in Figure 71. Human capital is developed when the principal invests in her teachers through the hiring process and provides ongoing professional development to build capacity to strengthen skills and talents. Figure 71 compares the extent to which the principal and teachers from school three agree or disagree with each statement as it applies to the expansion of the teachers’ human capital, based on the actions of principal three.
Figure 71. Summary of Human Capital Responses for School Three

As demonstrated by the data in Figure 71, there is general alignment between principal three and her teachers (n=8) as to the level of agreement and disagreement on all of the following statements pertaining to the development of human capital: A) “The principal has consistently carved out time to provide teachers with individual mentoring and coaching regarding teacher practice,” B) “The principal has supported teachers in developing knowledge and skills related to the content that they teach based on his/her formal and informal observations,” C) “The principal has hired and maintained a high quality teaching staff,” D) “The principal has invested in the teachers' individual growth and professional development.” E) By providing teachers with continuous feedback outside of the formal evaluation process the principal has created conditions for change.
and professional development,” and E) “By providing teachers with continuous feedback outside of the formal evaluation process the principal has created conditions for change.”

As depicted in Figure 71 the principal and the teachers, based on mean teacher scores ranging from 3.6-3.9, show agreement or strong agreement with each statement referring to the advancement of human capital. As shown in Figure 71 for statements B, C, D, and E, the overall teacher mean score reveals strong agreement with a mean of 3.9. Statement A leans towards agreement with a mean score of 3.6.

Social Capital

Figure 72 summarizes the seven survey statements as they pertain to principal three’s development of her teachers’ social capital. Social capital refers to the collaboration of staff as they learn from one another and work towards common goals. The data in Figure 72 represents the extent to which the principal and teachers from school three agree or disagree with each statement regarding the principal’s development of her teachers’ social capital.

The data shown in Figure 72 shows that for each statement regarding the development of social capital on the part of principal three, there is alignment as to the extent of agreement and disagreement with the statements, by both the principal and the teachers for each of the following statements: A) “The principal has included multiple stakeholders in the development of a shared vision,” B) “When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources,” C) “The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction,
planning and assessment,” D) “The principal cultivates positive and trusting relationships with and between staff members,” F) “The principal facilitates teacher learning more often than he/she directs the learning,” and G) “The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.” The range of mean scores for the teachers is from 3 to 3.9. For each statement, the data demonstrates that the participants show agreement or strong agreement regarding principal support of social capital. However, for statement E) “The principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers,” there is a discrepancy in regards to the level of agreement by the principal and the teachers. For this statement, the principal shares strong disagreement. This indicates that she perceives herself as having developed the collective capabilities of teams of teachers over the individual, whereas the teachers (n=8) lean towards agreement with this statement, as demonstrated by a mean score of 2.9, indicating that they perceive the principal as developing the individual teacher as opposed to teams of teachers.
Figure 72. Summary of Social Capital Responses for School Three.

**Decision Making Capital**

Figure 73 summarizes the five survey statements which focus on the principal three’s support and development of her teachers’ decision making capital. Decision making capital refers to the decisions made by teachers based on experience, expertise and collaboration. The data shown in Figure 73 compares the extent to which the principal and teachers from school three agree or disagree with each of the following statements regarding the principal’s development of her teachers’ decision making capital: A) “The principal empowers teachers to make decisions or judgments about my
teaching practices and student learning,” B) “The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g. instructional rounds, classroom observations),” C) “The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decision,” D) “The principal asks teachers to provide evidence that their teaching has positively affected student learning,” and E) “The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers).”

General alignment exists between the data from the principal and the data from the teachers. Figure 73 demonstrates that the teacher mean scores range from 3.5-3.9 with principal scores of 3 (agree) and 4 (strongly agree) for each statement. The principal and teachers show collective agreement or strong agreement for each of the statements referring to decision making capital.
Figure 73. Summary of Decision Making Capital Responses for School Three.

Open Ended Responses

The researcher asked one open ended response question to both the principal and teacher participants affording all participants an opportunity to share additional information about how the principal creates conditional for change during Common Core implementation. The question posed to the principal was, “Is there any other information you would like to share regarding the leadership behaviors you displayed which contributed to creating conditions for change during the implementation of the Common Core Standards?” A similar question was asked of each teacher participant, “Is there any
other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?"

The principal from school three provided a brief statement in response to the open-ended question as shown in Table 8. She shared a statement regarding the use of a coach to support teachers in developing core instruction related to the Common Core.

Table 8

School Three - Principal Open Ended Response

"Is there any other information you would like to share regarding the leadership behaviors you displayed which contributed to creating conditions for change during the implementation of the Common Core Standards?"

Response

- My Goal: Coach supports my teachers on the CCS to develop core instruction.

Table 9 displays the responses to the open-ended question provided by two teachers from school three. Two teachers responded to the open-ended question. One makes a statement regarding a positive perception of the principal, sharing that she is supportive and has the best interests of students in mind. The second response focuses on the CIITS network, which is designed to provide resources and professional development to teachers. The response indicates that the teacher does not find this resource useful, but does not reference support or a lack of support on the part of the principal, in regards to use of the CIITS network.
Table 9

School Three - Teacher Open Ended Responses

“Is there any other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?”

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>• My principal is an awesome person. She is very supportive of her staff and definitely has her students' best interest in mind. I really enjoy working for her.</td>
</tr>
<tr>
<td>• I haven't found the CIITS network helpful in any way. I do not know of anyone using it beyond what may be required by the district.</td>
</tr>
</tbody>
</table>

Summary

The presentation of data in this chapter illustrates the perceptions of principals and their teachers regarding the principal’s behaviors that created conditions for positive change during the implementation of the Common Core State Standards; based on the principal’s development and support of professional capital. Data was collected using a principal and a corresponding teacher survey and was displayed for the three Kentucky schools that met the criteria for participation in this research, as determined by the researcher. A presentation of the data pertaining to the demographics of each school, as well and the principal and teacher participants within the school was shared. Data was then presented for each of the nineteen survey statements which asked the principal to indicate the extent of his/her agreement or disagreement for statements regarding their development of teacher professional capital. Additional data was shared based on survey responses from teacher participants, indicating the extent to which they agreed or
disagreed with corresponding statements about their principals’ development of professional capital. The graphs and tables presented provide a detailed picture regarding the perceived behaviors displayed by the principal that created conditions for change during the implementation of Common Core.

Data will be further discussed and analyzed in the following chapter allowing the researcher to compare the perceptions of the school principal and her teachers for each survey statement regarding various components of professional capital.

In summary, it was found that there was general alignment between principals and teachers as to their extent of agreement or disagreement for the vast majority of the survey statements. School one demonstrated the highest number of discrepancies between the principal and the teachers. School three had the most closely aligned data for survey statements within each component of professional capital.

Placing these data into the conceptual framework of Hargreaves and Fullan’s (2012) work on building professional capital, the researcher will be able to identify specific behaviors displayed by the principal that created conditions for change during the implementation of Common Core, rooted in the development of professional capital. Data will be examined to answer the research questions that have guided this research. Data is presented in a manner that allows the researcher to examine each aspect of professional capital including human, social and decision making capital as well as the sum of all three. The researcher will analyze data to determine commonalities and discrepancies pertaining to the perception of the principal and the teachers regarding the specific leadership behaviors the principal engaged in to build teacher capacity through
the development of human, social and decision making capital, to create conditions for change related to the implementation of the Common Core Standards.
CHAPTER V
ANALYSIS OF DATA

Introduction

The purpose of this research study is to identify specific leadership behaviors and practices of principals that have impacted the implementation of the Common Core Standards within the state of Kentucky, by creating positive conditions that support change through the development of professional capital. The analysis of data contained within this chapter is rooted in conclusions gathered from data collected within the framework of the four research questions that guided this study. The analysis of data for each research question is followed by a discussion of the limitations of this research study as well as recommendations for future research directly related to this study. This chapter will also contain a summary of findings and will conclude with information concerning the implications and significance of these findings on the field of educational leadership.

To review, this research study examined the behaviors and leadership styles of elementary school principals in Kentucky that created conditions for positive change, by building teacher capacity in order to successfully implement the Common Core State Standards. The historical analysis of educational reform in the state of Kentucky, as presented in the literature review found in chapter II, lends background in understanding the current state of educational reform in Kentucky. The 1989 case, Rose v. Council for Better Education was the impetus for educational reform that continues to impact
Kentucky’s current educational system (Collins, 2015; Prichard Committee for Academic Excellence, 1999; Weston & Sexton, 2009). This landmark case followed decades of poor school performance by students and disparity in regards to state funding for education, particularly in poor and rural communities (Dawahare, 2004; Day, 2003; Partnership for Kentucky School Reform, 1996). The Rose decision provided evidence that Kentucky’s entire educational system was unconstitutional (Collins, 1991; Collins, 2015; Partnership for Kentucky School Reform, 1996) and resulted in legislation that overhauled Kentucky’s educational system.

In 1990, less than a year after the Rose decision, the General Assembly passed the Kentucky Education Reform Act (KERA) (Dawahare, 2004; Wright, 2013; Collins, 2015; Hunter, 1999). KERA was described as “the nation’s most comprehensive school reform legislation” (Nystrand, 1993, p. 31) and led to systematic changes in three broad areas including school finance, governance and curriculum (Hoyt, 2016; Clark, 2003; Collins, 2015; Lindle, 1992; Partnership for Kentucky School Reform, 1996). Financial reform efforts resulted in immediate increases in equitable funding for school districts throughout the state of Kentucky (Partnership for Kentucky School Reform, 1996; Weston & Sexton, 2009). Following the implementation of KERA, Kentucky also made overall progress in regards to student achievement (Dawahare, 2004; Weston & Sexton, 2009).

In 2009, the Kentucky General Assembly mandated the Kentucky Department of Education to develop new academic standards focusing on critical knowledge, skills and capacities needed for success in a global economy. Senate Bill 1, known as the Kentucky
Core Academic Standards, passed in 2009, and required the Kentucky Department of Education to work in collaboration with the Kentucky Council on Postsecondary Education to “plan and implement a comprehensive process for revising the academic content standards” (Kentucky Department of Education: Kentucky Core Academic Standards, 2014, para 1). Seeking to meet this demand, in February 2010 Kentucky became the first state to officially adopt the Common Core State Standards in both English Language Arts and mathematics.

In order to understand leadership behaviors of Kentucky principals, associated with the creation of conditions for positive change and the successful implementation of Common Core Standards the following questions were researched and answered:

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?
c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?
c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

**Conclusions**

**Research Question 1**

What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

Participants indicated their extent of agreement or disagreement with each survey question using a 4-point scale, with a 4 indicating strong agreement and 1 indicating strong disagreement. For purposes of data analysis, the researcher converted each
participant’s answers to a number (see Table 6). Doing so allowed the researcher to identify the mean teacher score for each survey question.

In regards to the development of human capital, which focuses on hiring high quality teachers and developing their skills through ongoing professional development and feedback, (Hargreaves & Fullan, 2012; Leana, 2011), principals collectively report the highest level of agreement pertaining to their development of their teachers’ human capital, for the question pertaining to their behaviors that show investment in their teachers’ individual growth and professional development. The average score of all principals (n=3) is 3.66 as depicted in Table 10, demonstrating that principals perceive themselves as building teacher capacity during the implementation of the Common Core, through individualized professional development and teacher growth opportunities, as a means of building human capital.

Teachers also report high levels of agreement as it relates to behaviors demonstrated by principals to build human capital through an investment in individual teacher growth. The average score of all teachers (n=19) is 3.6, indicating that teachers perceive their principals as supporting their individual development and growth, thereby developing human capital.
Table 10

Summary of Perceived Principal Development of Human Capital

<table>
<thead>
<tr>
<th>Human Capital Questions</th>
<th>Principal One</th>
<th>Principal Two</th>
<th>Principal Three</th>
<th>Average of All Principals (n=3)</th>
<th>Teachers School One (n=5)</th>
<th>Teachers School Two (n=6)</th>
<th>Teachers School Three (n=8)</th>
<th>Average of All Teachers (n=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal has consistently carved out time to provide teachers with individual mentoring and coaching regarding their practice.</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3.2</td>
<td>3.7</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>The principal has supported teachers in developing knowledge and skills related to the content that they teach based on his/her formal and informal observations.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.33</td>
<td>3.2</td>
<td>3.7</td>
<td>3.9</td>
<td>3.6</td>
</tr>
<tr>
<td>The principal has hired and maintained a high quality teaching staff.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.33</td>
<td>3.2</td>
<td>3.5</td>
<td>3.9</td>
<td>3.53</td>
</tr>
<tr>
<td>The principal has invested in the teachers’ individual growth and professional development.</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3.66</td>
<td>3.2</td>
<td>3.8</td>
<td>3.9</td>
<td>3.6</td>
</tr>
<tr>
<td>By providing teachers with continuous feedback outside of the formal evaluation process the principal has created conditions for change.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.33</td>
<td>3</td>
<td>3.7</td>
<td>3.9</td>
<td>3.53</td>
</tr>
</tbody>
</table>

Although not quite as well developed as behaviors that support individual teacher development, principals report relative favorable agreement for the behaviors they
demonstrate in the areas of: (1) hiring and maintaining a quality teaching staff, (2) use of formal and informal observations to develop teacher content knowledge and skills, as well as (3) creating conditions for change through feedback provided outside of the formal evaluation process. Each of these directly relates to the development of human capital. As demonstrated in Table 10, the average score for questions pertaining to each of these behaviors is 3.33, showing that principals generally agree that they demonstrate these behaviors in support of fostering the human capital of teachers.

Teacher perceptions generally mirror those of principals concerning principal practices that support the improvement of human capital in the following areas: (1) hiring and maintaining a quality teaching staff, (2) use of formal and informal observations to develop teacher content knowledge and skills, as well as (3) creating conditions for change through feedback provided outside of the formal evaluation process. Mean scores for the teachers’ perception of these principal behaviors range from 3.53-3.6, indicating that teachers generally view their principals as developing human capital through the hiring and evaluation process as well as through the use of feedback outside of the formal evaluation process.

There was less agreement amongst the principals regarding their perception of behaviors used to consistently carve out time to provide teachers with individual mentoring and coaching regarding their practice. The mean score of the three (n=3) principals was 3.0 with school one serving an outlier in terms of principal perceptions related to behaviors that support individual teacher coaching. Principal one strongly disagrees that this is a behavior she engages in. Conversely, the principals from schools
two and three strongly agree that they consistently carve out time to provide teachers with individual mentoring and coaching regarding their practice.

When asked about principal behaviors aligned with providing teachers with individual mentoring and coaching regarding their practice, the mean teacher score was a 3.0. Similar to the mean score of the principals, this was the area with the lowest level of favorable agreement in pertaining to the principals’ practice of behaviors that support the development of human capital. However, it is important to note the significant discrepancy regarding principal one’s perception of her skills in this area as compared with the teachers’ perception. With a mean score of 3.5, teachers indicate general agreement with the statement that their principal consistently carves out time to provide them with individual mentoring and coaching regarding their practice. Interestingly, principal one does not perceive herself as doing this and strongly disagreed that this is a practice she engages in.

Implementation of the Common Core State Standards represents educational reform that has changed teaching and learning at the classroom level. The role of teachers has changed as they fully implement the Common Core, increasing their role as a facilitator of learning as they move away from the more traditional role of lecturer. Principals are responsible for preparing and supporting teachers through this change, helping them to not only understand the standards but also the pedagogy necessary to implement the CCSS (Mathis, 2010). Teacher hiring and development is critical to the successful implementation of the CCSS.
Human capital refers to the quality of teachers and is directly connected to the hiring of talented teachers and the ongoing development of a teacher’s skills and talents (Consortium for Policy Research in Education, 2009; Fullan, 2014; Hargreaves & Fullan, 2012). According to Pil and Leana (2009), the development of human capital has been a fundamental component of numerous reform efforts. Human capital includes knowledge of subject manner, pedagogy, and an understanding of children and how they learn. Hargreaves and Fullan (2012) share that “getting good teaching for all learners requires teachers to be highly committed, thoroughly prepared, continuously developed, properly paid, well networked with each other to maximize their own improvement, and able to make effective judgments using all capabilities and experience” (p. 3).

Table 10 presents data as it pertains to the perceived development of human capital by the principal, during the implementation of the Common Core, based on the perception of the principal and the teachers. In general, all three schools indicate favorable agreement or strong agreement regarding the extent to which the principal developed the human capital of teachers. Data suggests that using a model of individual teacher coaching and mentoring regarding their professional practice would further support teachers in expanding skills related to human capital.

Interestingly, on a number of questions teachers identified a higher level of favorable agreement regarding their principal’s practices and behaviors that developed their human capital as compared with the perception of the principal regarding their own practice. This was the case for principal three as it relates to the following principal practices: (1) hiring and maintaining a quality teaching staff, (2) use of formal and
informal observations to develop teacher content knowledge and skills, as well as (3) creating conditions for change through feedback provided outside of the formal evaluation process. In each of these three instances, the principal agreed with the statement about their behaviors whereas the teachers strongly agreed with the statements, as depicted by a mean score of 3.9 in each area. Developing an understanding of these discrepancies will allow the principal to better support the development of human capital in a systematic manner aligned to the needs of teachers. Data from this study confirms that teacher and the principals from this study generally perceive the principal as having demonstrated behaviors consistent with the development of human capital during the implementation of Common Core.

**Research Question 2**

What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?
Table 11 demonstrates the perception of principals and teachers regarding practices the principal engaged in that developed the social capital of teachers during the implementation of the Common Core. Social capital complements human capital in that it stimulates the growth of human capital through the development of school communities and teams, positive relationships and collaboration amongst teachers (Fullan and Hargreaves, 2012). Social capital, according to Leana (2011) focuses on the relationship amongst teachers and not only on their individual abilities, knowledge or skills (human capital).

Principals from each of the three schools collectively report general agreement that is favorable for the following survey questions, which demonstrate relative strengths in regards to their development of social capital: (1) The principal has included multiple stakeholders in the development of a shared vision which has a mean score of 3.66 (n=3), (2) The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment, which has a mean score of 3.66 (n=3), (3) The principal cultivates positive and trusting relationships with and between staff members with a mean score of 3.66 (n=3), (4) The principal facilitates teacher learning more often than she directs the learning which has a mean score of 3.0, and (5) The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches with a mean of 3.33 (n=3). For each of these questions the data confirms that the principals demonstrate either agreement or strong agreement that is favorable, with the survey questions indicating that they perceive themselves as having engaged in specific behaviors during Common Core
implementation, to build their teachers’ capacity for developing social capital. This trend amongst the principals aligns with research regarding practices of effective instructional leaders. According to the research, effective school leaders collaborate with teachers, facilitate professional learning opportunities, embed group goals within a shared vision for instruction, and provide individual and differentiated support to teachers (Heck et al., 1990; Leithwood et al., 1993). The behaviors of the principals represented in the five survey questions listed above support the development of social capital. Data from the principal survey suggests that each of the three principals generally agrees that they engaged in these behaviors to promote social capital during the implementation of the Common Core.

Interestingly, as Table 11 shows, there is general alignment between the mean score for principals (n=3) and the mean score for the teachers (n=19) on each of the five questions shared above, in regards to behaviors displayed by the principal to develop social capital of teachers. In general, there is favorable agreement amongst the teachers for each of the five survey questions shared above. The mean score for the teachers’ range from 3.3 (The principal facilitates teacher learning more often than she directs the learning) to a 3.6 (The principal has included multiple stakeholders in the development of a shared vision and The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment).
### Table 11

**Summary of Perceived Principal Development of Social Capital**

<table>
<thead>
<tr>
<th>Social Capital Questions</th>
<th>Principal One</th>
<th>Principal Two</th>
<th>Principal Three</th>
<th>Average of All Principals (n=3)</th>
<th>Teachers School One (n=5)</th>
<th>Teachers School Two (n=6)</th>
<th>Teachers School Three (n=8)</th>
<th>Average of All Teachers (n=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal has included multiple stakeholders in the development of a shared vision.</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3.66</td>
<td>3.2</td>
<td>3.7</td>
<td>3.9</td>
<td>3.6</td>
</tr>
<tr>
<td>When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources.</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3.4</td>
<td>3.7</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3.66</td>
<td>3.2</td>
<td>3.8</td>
<td>3.9</td>
<td>3.6</td>
</tr>
<tr>
<td>The principal cultivates positive and trusting relationships with and between staff members</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3.66</td>
<td>2.6</td>
<td>3.5</td>
<td>3.9</td>
<td>3.33</td>
</tr>
<tr>
<td>The principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teacher</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3.33</td>
<td>2.8</td>
<td>3</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>The principal facilitates teacher learning more often than he/she directs the learning</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2.6</td>
<td>3.3</td>
<td>3.5</td>
<td>3.1</td>
</tr>
<tr>
<td>The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.33</td>
<td>3</td>
<td>3.2</td>
<td>4</td>
<td>3.4</td>
</tr>
</tbody>
</table>
Curiously, data for teachers from school number one (n=5) consistently demonstrates a mean score lower than the combined mean of teachers from all three schools combined (n=19) for the five questions listed above pertaining to social capital. The mean scores for teachers from school number one range from 2.6 (bordering on disagreement) to 3.2, for each of the five questions. Extrapolating the data in this manner allows the researcher to conclude that teachers from school one (n=5) do not necessarily perceive their principal as consistently engaging in practices that cultivate positive and trusting relationships with and between staff members (mean of 2.6) nor do they perceive the principal as consistently facilitating learning as opposed to directing it (mean of 2.6).

Having researched the impact of human and social capital on math achievement in the New York City Public School system, Leana (2011) found that schools with the highest level of growth focused on both human capital and social capital by emphasizing collaboration on the part of teachers. She found that teacher social capital was a predictor of student achievement. Based on ten years of research regarding principal practices within the Pittsburgh public school system Leana has concluded that, “the more effective principals were those who defined their roles as facilitators of teacher success rather than instructional leader” (p. 35). The researcher can infer that based on the data collected, in order for principal one to strengthen the social capital of teachers, and thereby the overall professional capital of teachers, she should strengthen her skills in regards to developing positive and trusting relationships as well as the facilitation of teacher learning rather than the direction of teacher learning, which will in turn have a positive impact on student achievement.
In contrast to the perceptions of the teachers from school one, teachers from school three \((n=8)\) consistently report a mean score higher than the average mean of teachers from all three schools combined \((n=19)\) for the five questions listed previously. The researcher can conclude that these teachers perceive their principal as having developed social capital during Common Core implementation. The mean scores for teachers from school number three range from 3.5 to 4.0 for each of the five questions. Interestingly, as Table 11 depicts, on a number of the questions shared above, teachers identify a higher level of favorable agreement regarding their principal’s practices and behaviors that developed their social capital as compared with the perception of principal three regarding her own practice. This discrepancy is most significant for principal three as it relates to the following principal practice: The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches. In regards to this practice, the principal agrees with the statement about their behavior whereas the teachers demonstrate strong agreement with the statement, as depicted by a mean score of 4.0.

The data reveals that for this same practice (The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches) there is a discrepancy between the principal and the teachers from school two. In this case the principal indicates strong agreement and the teachers \((n=6)\) express agreement, with a mean score of 3.2. The researcher can conclude that based on teacher perceptions, principal two should continue to develop and engage in practices that
provide opportunities for teachers to receive feedback from peers, other administrators and/or coaches as a means of cultivating social capital.

General alignment exists between the principals’ perception as well as that of the teachers in regards to the following survey statement: When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources. Each principal shared non-favorable agreement with this statement, with a mean principal score of 3.0, as did the majority of teachers. The mean score for all teachers (n=19) is 3.5 leaning towards strong agreement with the above statement. The researcher can conclude that in each school the principal has focused on internal structures and supports for resources to a greater degree than she has looked outside of the school and district for external support and resources. According to Spillane, Hopkins and Sweet (2015) organizations have both internal and external dimensions. It is essential that schools develop both intra-organizational and inter-organizational relations to cultivate social capital of teachers.

As demonstrated in Table 11, there is also general non-favorable agreement amongst the teachers and the principals as it relates to the following statement: The principals engaged in behaviors which focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers. The mean score of the principals (n=3) in response to the above statement is a 3.0 and the mean score for teachers (n=19) is 2.9. However, it is important to note that principal one disagrees with the statement above, implying that she perceives herself as developing teacher teams, despite the fact that teachers from school one (n=5) demonstrate
nonfavorable agreement with a mean score of 2.8. Focusing on the development of individuals as opposed to developing the collective capabilities of groups or teams violates best practices as outlined in the research. Leadership that supports social capital through the development and collaboration of adults enhances the success of all in the school environment (Hargreaves & Fullan, 2012; Hord, 2009). Research supports the relationship between a schools’ social capital and measures of school performance including reform implementation (Penuel et al., 2009).

An analysis of the mean scores of both teachers (n=19) and principals (n=3), pertaining to the principals’ development of social capital, suggests that principals in Kentucky generally engaged in the following behaviors to develop social capital during Common Core implementation: (1) Including multiple stakeholders in the creation of a shared vision, (2) Providing frequent opportunities for teacher collaboration, (3) Cultivating positive relationships with and amongst the staff, (4) Creating opportunities for teacher feedback from a variety of sources, and (5) Actively demonstrating respect for teacher. Further evidence from this research study suggests that in order to foster the social capital of teachers, principals must engage more frequently in behaviors that focus on the development of teams of teachers as compared to the development of individuals. Additionally, data from this research indicates that principals implementing reform, such as the Common Core, build their own capacity to reach beyond their school or district to integrate external ideas and resources to support innovation and change.
Research Question 3

What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?

a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

Table 12 provides data summarizing the perception of principals and teachers regarding practices Kentucky principals who participated in this study, engaged in to build the capacity of teachers as it relates to the development of decision making capital, during the implementation of the Common Core. Similar to those in the legal profession, educators make judgments and decisions regarding complex situations with varied problems and cases on a regular basis. In order to develop decision making capital teachers, like judges, must learn to assess situations effectively to make sound decisions individually and with input and collaboration with others, supported with social capita (Fullan & Hargreaves, 2012).
Table 12

Summary of Perceived Principal Development of Decision Making Capital

<table>
<thead>
<tr>
<th>Decision Making Capital Questions</th>
<th>Principal One</th>
<th>Principal Two</th>
<th>Principal Three</th>
<th>Average of All Principals (n=3)</th>
<th>Teachers School One (n=5)</th>
<th>Teachers School Two (n=6)</th>
<th>Teachers School Three (n=8)</th>
<th>Average of All Teachers (n=19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal empowers teachers to make decisions or judgments about my teaching practices and student learning.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.33</td>
<td>3.2</td>
<td>3.7</td>
<td>3.8</td>
<td>3.6</td>
</tr>
<tr>
<td>The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g. instructional rounds, classroom observations).</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2.6</td>
<td>3</td>
<td>3.5</td>
<td>3</td>
</tr>
<tr>
<td>The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decisions.</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>3.33</td>
<td>2.8</td>
<td>4</td>
<td>3.9</td>
<td>3.6</td>
</tr>
<tr>
<td>The principal asks teachers to provide evidence that their teaching has positively affected student learning.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3.33</td>
<td>3.2</td>
<td>4</td>
<td>3.8</td>
<td>3.7</td>
</tr>
<tr>
<td>The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers).</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2.6</td>
<td>3.5</td>
<td>3.8</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Table 12 illustrates that there is general alignment between the perceptions of principals and those of the teachers as it relates the principals’ development of decision making capital during the implementation of the Common Core. Five survey questions
targeted the behaviors demonstrated by the principal to foster the decision making of teachers. Favorable agreement exists for the following four survey questions/statements: (1) My principal empowers teachers to make decisions or judgments about my teaching practices and student learning, (2) The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g., instructional rounds, classroom observations), (3) The principal asks teachers to provide evidence that their teaching has positively affected student learning, and (4) The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers). The mean scores for principals (n=3) range from 3.0-3.33 for each of the four statements shared above. The mean scores for the teachers (n=19) range from 3.0-3.7.

These data confirm that there is for the most part, positive agreement that the principals have engaged in behaviors to develop decision making capital by empowering teachers to make judgments about their teaching, through opportunities for teachers to observe other professionals, by asking teachers to share evidence of student learning aligned to teaching practices and by demonstrating respect for the decisions made by teachers. Information gleaned from the data presented in Table 12 suggest that Kentucky principals have in fact demonstrated the behaviors shared above, that deliberately improve skills of teachers in the area of decision making. For each of the four statements listed above, the teachers indicate identical or higher levels of positive agreement as compared to the principals. This is most significant as it relates to principal behaviors which center on asking teachers to provide evidence that their teaching has had a positive
impact on student learning. For this statement, the mean score of principals (n=3) is 3.33, which demonstrates agreement and that of teachers (n=19) is 3.7, leaning towards strong agreement. However, as revealed in Table 12, for each of these statements teachers from school one (n=5) have a lower mean score than the average of all teachers combined (n=19). This is most significant for the question pertaining to the principal demonstrating respect for teacher judgement. In this case the mean score of all teachers (n=19) is 3.3 with the teachers from school one demonstrating a mean score of 2.6. Conversely, the mean score for the teachers from school two (n=6) is identical or above the collective mean score for all teachers (n=19). Similarly, the mean score for teachers from school three (n=8) is consistently above the collective mean for all teachers (n=19). This information suggests that principal one should continue to seek strategies to intentionally build the decision making skills of teachers to create conditions for positive change, by demonstrating her respect for the decision making skills of teachers.

The final question in the area of decision making capital asks teachers and principal for their perceptions regarding principal behaviors that encourage teachers to reflect on their planning, instruction and assessment as an individual as opposed to as a team. As illustrated in Table 12, there is unfavorable agreement on the part of both principals and teachers as it pertains to the principals’ skills in building team decision making practices. The mean score for principals (n=3) is 3.33 and the mean score for teachers (n=19) is 3.6. Data confirms that collectively principals are perceived as demonstrating behaviors that focus more on individual decision making as opposed to team decision making. It is important to note that, as depicted in Table 12, principal one
disagrees with the statement: The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decisions, and perceives herself as implementing practices that support team decision making. Teachers from school one (n=5) demonstrate a lower level of agreement with the statement above (mean score of 2.8) as compared to teachers from school two (mean score of 4) and school three (mean score of 3.9). This data suggests that teachers from school one perceive the principal as having demonstrated behaviors that support both individual and team decision making. Supporting team decision making remains a more significant area for growth for principals two and three, both of whom strongly agree that they encourage individual reflection and decision making as compared to team reflection and decision making. As supported by current research principals must build the capacity of teachers to support individual decision making and decisions made by groups, rooted in the experiences, practices and reflections that develop over time. The capacity to make good decisions stems from both human and social capital and is supported with practice, mentoring, coaching and inquiry (Hargreaves, 2015b).

**Research Question 4**

Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?
Commonalities and discrepancies between principal and teacher perspectives. The data found in Tables 8, 9, and 10 indicate high levels of alignment between principals and teachers regarding the degree to which principals have or have not exhibited specific behaviors that create conditions for change through the development of professional capital during the implementation of the Common Core. At times the data demonstrate favorable agreement between principals and teachers, indicating a shared perspective that the principals display the stated behaviors to support the professional capital of teachers. At other times the data shows less than favorable agreement indicating that the principals do not engage in the stated behaviors in a manner that develops the professional capital of teachers.

Principals and teachers share the highest-level agreement in regards to their perspective as it pertains to principal behaviors that support the development of human capital. Data demonstrates that with four of the five survey questions about the development of human capital there is a common perspective shared between principals and teachers that equates to favorable agreement. This implies that teachers generally agree with the principals’ perspective that they have exhibited behaviors aligned with developing human capital during Common Core implementation. Collectively the principals (n=3) show agreement with the following survey question: The principal has consistently carved out time to provide teachers with individual mentoring and coaching regarding their practice. However, as shared previously, principal one is an outlier and shows strong disagreement with this question, implying that she does not believe this is a practice she has engaged in during Common Core implementation. This is in direct
opposition to the collective perspective of teachers. Teachers have a mean score of 3.2 for this question with four out of five teachers indicating agreement or strong agreement.

The principals and teachers generally share a common perspective regarding principal behaviors that created conditions for change through the development of social capital during the implementation of the Common Core. As is the case for human capital, agreement is a combination of both favorable and non-favorable agreement. As represented in Table 12, favorable agreement is demonstrated for principal behaviors regarding the development of a shared vision, creating opportunities for teacher collaboration, cultivating trusting relationships, facilitating teacher learning and creating opportunities for teachers to receive feedback from multiple sources.

The data confirms that non-favorable agreement exists for principal behaviors that support looking beyond the school and district for ideas and resources. Teachers have a mean score of 3.5 for the question: When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources. The researcher can conclude that principals would benefit from honing in on skills that allow them to reach beyond their own school or district for ideas and resources to build the social capital of teachers. Kentucky principals should increase use of The Continuous Instructional Improvement Technology System (CIITS) which is a technology-based platform developed by the Kentucky Department of Education to support teacher collaboration across the state. The Continuous Instructional Improvement Technology System provides resources, such as lessons plans and assessments aligned to the Common Core.
There is also non-favorable agreement for the survey question pertaining to the principal displaying behaviors that encourage the development of individual capabilities as compared to developing the capabilities of teacher teams. The highest level of disagreement between any principal and her teachers is in regards to this question for school three. Although the principal demonstrates strong agreement with this question the mean for teachers is 2.9, representing a relatively low level of agreement. This implies that to some degree teachers believe their principal does engage in practices to support the development of teams in regards to skills and teaching capabilities. It would behoove principal three to develop a better understanding of her teachers’ perspective as a means of further developing the social capital of teachers.

Commonalties exist in relationship to the perception of teachers and principals as it relates to the development of decision making capital. A review of Table 12 shows that there is generally favorable agreement between principals and teachers indicating that principals tend to demonstrate behaviors that develop the decisional capital of teachers. The one area of non-favorable agreement relates to the following question: The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decisions. As shared previously, principal one disagrees with this question and her teachers demonstrate a low level of agreement. In general, decision making capital is a relative strength for the principals involved in this research, based on the data presented for all three schools.

Implications for educational leadership. As school leaders implement educational reform and initiatives, such as the Common Core, it is essential that they
develop an understanding of their behaviors and how they create conditions for positive change. The Common Core represents the most recent standards movement in the United States and is proceeded by numerous initiatives and reform efforts designed to standardized and equalize the education of all children. The Common Core has caused principals to redefine their roles to support changes necessary in developing the capacity of teachers to implement rigorous standards in their classrooms. Research demonstrates that there is a significant relationship between the influences of the principal and student learning, second only to the quality of the classroom teacher (Harvey et al., 2013; Leithwood et al., 2008; Mitgang, 2012). This research study supports the importance of building the professional capital of teachers through the development of human, social and decision making capital.

Principals from all three schools generally show favorable agreement or strong agreement with survey questions pertaining to their development of human capital. As stated previously the one exception to this is principal one, who strongly disagrees that she consistently carves out time to provide teachers with individual mentoring and coaching. School leaders should continue to examine practices related to developing human capital, particularly as it pertains to providing individual mentoring to teachers as this area has the lowest mean score (3.3) for teachers (n= 19). Teachers from school three consistently indicate strong agreement for questions regarding their principal’s behaviors that support conditions for change through the development of human capital. It would benefit school leaders to look to their colleagues to identify specific behaviors employed by principals who influence change by fostering human capital. Examining the
individual teacher responses as they relate to the principal’s capacity to develop human capital of teachers shows that in numerous cases there was one teacher from school one with data discrepant from that of the other teachers. Suggestions from this data review suggest that to truly be effective in leading change principals must ensure that they take steps to develop the human capital of all teachers and should continuously reflect on their interactions with and support of each individual teacher. This may require principals to alter their leadership approach to accommodate the unique needs of some staff members. Odden (2011) suggests that to effectively develop human capital school leaders must look beyond simply hiring high quality staff. Implications from this research support Odden’s claim that,

Strategically managing human capital in education is about restructuring the entire human resource system. That means that recruitment, selection, distribution, induction, professional development, performance management and evaluation, compensation, and career progression are all restructured to boost teacher and principal effectiveness in ways that dramatically improve instructional practice and student learning. (p. 9)

As demonstrated through this research in order to cultivate the human capital of teachers, principals must enhance their behaviors that promote the ongoing development of all teachers.

The principal, according to Lambert (2002) and Marks and Printy (2003), facilitates learning by inviting teachers and others to share in the instructional leadership of the school, rather acting as the sole leader of the school. Implications of this research
support the need for principals to refine their skills in the development of social capital, as they build the collective capacity of teachers, extending beyond the school for feedback, resources, ideas and support. Data from this research indicates that there is generally favorable agreement between principals and teachers on five of the seven behaviors addressed in the teacher and principal surveys pertaining to social capital. However, for the survey statement pertaining to principals’ behaviors related to facilitating teacher learning more often than directing it the mean score (3.1) for all teachers (n=19) suggests a relatively low level of favorable agreement, implying that this should remain an area of concentration for Kentucky principals involved in this research, as they seek to create positive conditions for change.

Social capital improves the skills of all teachers within the school setting by providing them with access to the human capital, or talents and expertise of others. The principal’s primary role, according to Fullan (2014), is to build the social capital of teachers. To achieve this goal, principals should review the two survey questions pertaining to social capital that demonstrate unfavorable agreement on the part of principals (n=3) and the teachers (n=19). These include: (1) When looking for ways to innovate, grow and change the principal has focused primarily on our school and district for ideas and resources, and (2) The principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teacher. Data from this research suggests that the principals in this study develop relationships and networks outside of the school district allowing teachers to gain ideas and resources beyond those provided within the school setting. Doing so will increase
the teachers’ access to additional resources and supports. The Kentucky Department of Education has created a system to accomplish this goal. The Continuous Instructional Improvement Technology System (CIITS) is a technology-based platform put in place in 2011 to support teacher collaboration across the state, by giving teachers access to lessons and materials directly linked to the Common Core Standards. “The Continuous Instructional Improvement Technology System, or CIITS, is a multi-phase, multi-year project designed to provide Kentucky public school educators with the 21st-century resources they need to carry out highly-effective teaching and learning in every classroom in Kentucky” (Kentucky Department of Education: CIITS Overview, 2015, para. 1). Collectively the teachers (n=19) generally demonstrate favorable agree with the survey question, My principal has created opportunities for me to use the Continuous Instructional Improvements Technology System (CIITS) to support instruction, assessment and scheduling, with a mean score of 2.9. However, seven of the 19 teacher participants disagree with this statement. Additionally, all three principal participants demonstrate disagreement of strong disagreement with this statement, implying that connecting teachers to resources beyond the school or district remains an area for growth as principals develop the social capital of teachers.

Furthermore, principals, according to this study, should identify strategies that allow them to develop the collective capacity of teams of teachers in addition to developing individuals. This will support a collaborative and trusting school environment where teachers benefit from the combined skills, talents and experience of others. There is increasing evidence suggesting that reforms that support high levels of
collaboration among teachers tend to enhance resources available to teachers to support increased student learning. Research suggests that when teachers engage their peers in conversations regarding the instruction of students, student achievement rises significantly (Leana & Frits, 2014). Principals must focus time and attention on building a climate of trust and sharing of ideas, information and resources as a means of developing social capital within their schools.

Conclusions drawn from this research support the importance of principals developing the decision making capital of teachers rooted in social capital. Decision making capital refers to the ability to make professional judgments, including those made by individuals and groups (Fullan, 2014; Hargreaves & Fullan, 2012; Hargreaves & Fullan, 2013). Both principals and teachers demonstrate favorable agreement on four of the five survey questions that focus on decision making capital. These include: (1) The principal empowers teachers to make decisions or judgments about my teaching practices and student learning, (2) The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g., instructional rounds, classroom observations, (3) The principal asks teachers to provide evidence that their teaching has positively affected student learning, and (4) The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers). Collectively the teachers indicate that having opportunities to observe colleagues as a means of informing their own decision making is the area with the lowest level of favorable agreement, implying that principals should explore opportunities to increase this practice. Principals should consider the use of learning labs or instructional
rounds to afford teachers an opportunity to observe others as a means of improving and informing their own professional practice.

Despite overall favorable agreement on the part of teachers (n=19) for the four questions shared above, teachers from school one demonstrate mean scores significantly lower than those from school two and school three on several questions pertaining to principal behaviors that facilitate the decision making capital of teachers. Although scores demonstrate favorable agreement for the teachers from school one (n=5), data implies that principals should concentrate efforts on demonstrating respect for teacher judgement, to improve the overall decision making capital of teachers.

Principals and teachers show unfavorable agreement with the following survey question: The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decisions. Implications from this data suggest that educational leaders implement strategies to support team reflection in addition to individual reflection, thereby supporting the decision making capital of all teachers. Providing opportunities for team planning with support and professional development on the reflection process may improve team decision making regarding planning, instruction, and assessment.

Limitations of the Study

In analyzing the data from all respondents, it was not found that a response bias existed in the research data. Due to the low response rate, it is difficult to determine if non-respondents could have substantially impacted the overall results for the data collected from principal or teacher participants. It should be noted, however, that all
three principal participants were female, as were 18 of the 19 teacher participants. Furthermore, it should be noted that all three principals identified themselves as Caucasian, as did 18 of the 19 teacher participants, with one individual identifying herself as multiracial. Teacher respondents represented all elementary grade levels with the exception of first grade. No one grade level was over or under represented as compared to other grade levels.

The most significant limitation of this research centered on the low response rate of principals, resulting in a small sample size for both principals and teachers. Although 671 elementary school principals throughout Kentucky received the principal survey, only 37 participants completed the survey, despite repeated attempts on the part of the researcher. A review of the principals’ data resulted in 27 principals meeting the research criteria established by the researcher. Principals were asked to share the teacher recruitment letter with all potential teacher participants. After repeated attempts to garner teacher participation, 23 qualifying teacher surveys were completed. Teachers represented five Kentucky elementary schools. Based on the criteria for inclusion in this study, as determined by this researcher, 19 teacher participants representing three elementary schools were included in the final research study and analysis. The small sample size suggests that participants may not be truly representative of Kentucky principals and teachers implementing the Common Core. The small sample size has impacted the researcher’s ability to draw strong conclusions about the relationship between principal behaviors and their ability to create conditions for positive change
during implementation of the Common Core, through the development of professional capital.

Despite a thought out plan for recruiting principals and teachers, a variety of factors limited the number of completed surveys and the overall sample size. The structure of the principal and teacher recruitment letters may have significantly impacted this study. Both letters were quite lengthy as they contained a detailed explanation of the research including the purpose, procedures, research questions, contact information and finally a link to the survey. Had the recruitment letter contained a succinct explanation of the research with the embedded survey link upfront, followed by a more detailed description, the researcher believes participation would have increased. The full description of the survey was included in the consent which was embedded in the principal and teacher surveys. Additionally, the recruitment letters should have included a date for completion of the survey, which was added to the teacher recruitment letter following several attempts to increase participation.

The original proposal for this research requested that participating principals forward the email addresses of qualifying teachers to the researcher. The researcher intended to email the teacher recruitment letter directly to qualifying teachers. This was revised by the Institutional Review Board (IRB), thereby requiring principal participants to first complete their survey and then forward the teacher recruitment letter to participating teachers, after receiving the recruitment letter from the researcher. This created a two-step process for principal participants which may have deterred participants from taking part in this research. Based on this requirement the researcher should have
immediately developed a short introductory letter for principals to share with potential 
teacher participants that clearly stated that the principal had already completed the 
principal survey, thereby giving consent for teacher participation. This was added to the 
revised teacher recruitment letters following multiple attempts to increase participation. 
The structure of the principal and teacher recruitment letters may have greatly impacted 
the overall response rate of principal and teacher participants in a negative manner, 
resulting in the small sample size.

Another limitation, which may have impacted this study pertains to the open 
ended question on both the principal and teacher surveys, designed to address the 
qualitative aspects of this study. This research study was both qualitative and 
quantitative in nature and used a mixed methods design. The researcher was able to 
quantify survey responses for the closed questions on both the principal and teacher 
surveys. Using an open ended question on each survey the researcher sought to explore 
the perceptions of participants using qualitative methods to enrich the quantitative 
findings. Very few participants provided feedback using the open ended question on 
either survey, which asked participants to share any other information regarding the 
leadership behaviors displayed by the principal which created conditions for change 
during the implementation of the Common Core. As depicted in Table 13, only three 
teachers responded with very positive, yet general, information about their principal, and 
did not specifically identify behaviors their principal displayed to create conditions for 
change during Common Core implementation. Table 14 shows the one open end 
response by a principal, which stated a goal of having the instructional coach support
teachers, but did not specifically cite behaviors they displayed to create conditions for change. The answers provided to the open ended questions did not significantly enrich the quantitative findings of this research.

Table 13

*Teacher Open Ended Responses*

“Is there any other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?”

**Responses**

- She is very supportive and always there if you need her.
- My principal is an awesome person. She is very supportive of her staff and definitely has her students best interest in mind. I really enjoy working for her.
- I haven't found the CIITS network helpful in any way. I do not know of anyone using it beyond what may be required by the district.

Table 14

*Principal Open Ended Responses*

“Is there any other information you would like to share regarding the leadership behaviors you displayed which contributed to creating conditions for change during the implementation of the Common Core Standards?”

**Responses**

- My Goal: Coach supports my teachers on the CCS to develop core instruction.
Additional limitations may have impacted this study in various ways. This research was limited to the perceptions of teachers and principals in just one state of the 44 participating in Common Core at the time the survey was distributed. Kentucky has the longest history of Common Core implementation and therefore it may have been difficult for participants to tease apart behaviors displayed by principals during the initial implementation as compared to the ongoing implementation of The Common Core Standards. Additionally, only elementary schools were included in this study eliminating the perceptions and voice of middle school and high school principals and teachers. The structure of middle and high school programs may have provided beneficial information regarding behaviors employed by principals to create conditions for change through the development of professional capital. It cannot be assumed that the behaviors displayed by elementary school principals would or should mirror those in middle and high school principal, and therefore this research may not be relevant beyond the elementary school setting. Use of an online survey may represent another limitation of this research study. The researcher did not speak with or interview any of the respondents and could not provide clarification on the survey procedures or survey questions. The data collected was self-reported which has the potential for increased bias and misunderstanding due to interpretation of the questions, memory and potential exaggeration of respondents. Information obtained from the principal and teacher surveys focused on the perceptions of principals and teachers who elected to voluntarily participate in this research.
Table 15

Student Demographic and Program Information for all Schools in the State of Kentucky and for All Students from School One, School Two and School Three

<table>
<thead>
<tr>
<th>Student Information</th>
<th>State of Kentucky</th>
<th>School One</th>
<th>School Two</th>
<th>School Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Free and reduced Lunch</td>
<td>60.8</td>
<td>88</td>
<td>71.1</td>
<td>87.6</td>
</tr>
<tr>
<td>% Homeless</td>
<td>4.1</td>
<td>11.6</td>
<td>1.3</td>
<td>8.2</td>
</tr>
<tr>
<td>% Migrant</td>
<td>.4</td>
<td>0</td>
<td>3.0</td>
<td>0</td>
</tr>
<tr>
<td>% English Learners</td>
<td>4.0</td>
<td>13.9</td>
<td>10.5</td>
<td>10.9</td>
</tr>
<tr>
<td>% Special Education</td>
<td>13.7</td>
<td>12.9</td>
<td>17</td>
<td>16.5</td>
</tr>
<tr>
<td>Attendance Rate</td>
<td>94.4</td>
<td>94.6</td>
<td>95.7</td>
<td>96.7</td>
</tr>
</tbody>
</table>


Table 16

Teacher Demographic Information for all Schools in the State of Kentucky and for All Teachers from School One, School Two and School Three

<table>
<thead>
<tr>
<th>Teacher Information</th>
<th>State of Kentucky</th>
<th>School One</th>
<th>School Two</th>
<th>School Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Years Teaching Experience</td>
<td>11.9</td>
<td>8.1</td>
<td>14.7</td>
<td>8.3</td>
</tr>
<tr>
<td>% of Teachers with Bachelor’s</td>
<td>22.1</td>
<td>31.4</td>
<td>11.1</td>
<td>25</td>
</tr>
<tr>
<td>% of Teachers with Master’s</td>
<td>47.4</td>
<td>51.4</td>
<td>44.4</td>
<td>60</td>
</tr>
<tr>
<td>% Rank 1 (Master’s or 30 hours equivalent training)</td>
<td>28.9</td>
<td>5.7</td>
<td>44.4</td>
<td>10</td>
</tr>
<tr>
<td>% Specialist</td>
<td>1.2</td>
<td>5.7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>% Doctorate</td>
<td>.4</td>
<td>5.7</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

In considering further limitations of this research it is necessary that one draw comparisons between the demographic information of teachers and students as well as the profile of available programs for each of the three schools included in this study. Additional information for consideration includes the financial state of each school as well as the geographical location and the proximity of the schools.

Student demographic and programming information for each school as well as that for all students across the state of Kentucky is found in table 15. It is important to note that schools one and three reside in the same urban school district. Although schools one and three identify as urban schools and school two identifies as a rural school district, the distance between school two and schools one and three ranges from 46-50 miles. A review of the student demographic information presented above suggests that there is, in general, a similar profile for each of the three schools in the following areas: (1) percent of students on free and reduced lunch (with school two serving as a slight outlier as compared to schools one and three), (2) percent of migrant students, (3) percent of English Language Learners, (4) percent of special education students (with school one serving as a slight outlier) and (5) student attendance rate. In each of these areas the individual school data is in line with or above the state percentage. Similarities in regards to student programming and student demographic information serves as a limitation of this research in that principals may have focused on the development of specific aspects of professional capital based on their student population. The data for all three schools is similar as it pertains to principal and teacher perceptions of principal development of human, social and decision making capital. As depicted in Tables 10, 11 and 12,
principal development of human and decision making capital were relative strengths as compared to their development of social capital. One cannot assume that principal development of professional capital would look the same in a school with a more unique demographic profile as compared to the schools included in this study.

The profile of teachers from each school, as presented in Table 16, may serve as another limitation of this research. Although school two has a slightly different profile as compared to schools one and three in regards to teacher experience and levels of education, it is important to note that there is a significant number of teachers with an advanced degree from each of the three schools. It is also important to note that the average years of teaching experience, for each school included in this study, ranges for 8.1-14.7 years, suggesting that on average teachers from each of the three schools have taught to the previous state standards prior to their implementation of the Common Core. As depicted in Table 5, 12 of the 19 teachers (63%) participating in this research have worked for six or more years in elementary education, suggesting that the majority of teachers included in this study have in fact taught to state standards, prior to teaching under the Common Core.

Principal development of professional capital may be influenced by the experience of teachers within a given school as well as their familiarity in teaching to state standards prior to the Common Core. Experienced teachers are beyond the onboarding phase of their teacher development process and require differentiated professional development as compared to novice teachers, to understand the significant shifts associated with the rigor and structure of the CCSS. Novice or less experienced
teachers have only taught to the Common Core Standards, suggesting that principals may use a different approach to developing their professional capital as compared to their more experienced peers. Similarities in the makeup of teachers from the three schools included in this study serve as another limitation as principals may have altered their focus on the development of each of the three capitals based on the experience and training of their teaching staffs.

Table 17

2015-2016 Financial Information for all Schools in the State of Kentucky and School One, School Two and School Three

<table>
<thead>
<tr>
<th>Information</th>
<th>State of Kentucky</th>
<th>School One</th>
<th>School Two</th>
<th>School Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Expenditures Per Pupil</td>
<td>$13,896</td>
<td>$14,846</td>
<td>$12,061</td>
<td>$14,846</td>
</tr>
<tr>
<td>Average Tax rate</td>
<td>61.3</td>
<td>71</td>
<td>58.9</td>
<td>71</td>
</tr>
</tbody>
</table>


In examining the financial profile of each school included in this study, as depicted in Table 17, it is important to note that schools one and three have a tax rate and per pupil expenditure rate above the state average. Conversely, school two has a tax rate and per pupil expenditure rate below that of the state. Finances have a direct impact on principal development of professional capital as schools with different per pupil expenditures may have varied access to resources, materials and professional development opportunities. The low response rate makes it difficult to draw strong conclusions regarding the connections between school finances and principals’ development of professional capital. The variation of tax rate and per pupil spending
may serve as an additional limitation of this research and should be considered when drawing conclusions regarding the development of professional capital by elementary school principals.

The surveys implemented in this research study focused specifically on the perceived development of teacher professional capital by elementary school principals during the implementation of the Common Core State Standards. Implementation of the Common Core has been placed in the hands of school leaders without clear guidelines. Another limitation of this study lies in the fact that survey questions did not identify directives, timelines or communication regarding the process for implementation of Common Core by the superintendent or district level administrators, which may have had a direct or indirect impact on the leadership of principals. In addition, survey questions did not address the development of principals and their professional capital by their superintendents during the Common Core implementation process, serving as yet another limitation of this research.

The researcher has served as an elementary school principal for 14 years and works in a state that has adopted the Common Core. As survey information was collected and analyzed the researcher maintained a journal of personal reflections to confront any personal bias based on survey responses by principals or teachers. The journal was used a strategy to address the limitations of personal bias.

**Recommendations for Future Research**

This study paves the way for additional research in various areas. Future research could expand this study to participants in other states at various stages of Common Core
implementation. As the first state to adopt the Common Core, Kentucky principals did not have the opportunity to explore or research practices and behaviors employed by others in their implementation process. Principals and teachers across the country have had the opportunity to learn from Kentucky, thereby identifying and selecting practices they perceive as supporting conditions for change during the Common Core implementation. Expanding this research to other states may provide valuable insight into principal practices that support the development of professional capital in schools with varying demographics and experiences in the implementation of educational standards.

By extrapolating the data for all schools in a manner that analyzed not only the collective sum of all three areas of professional capital (human, social and decision making capital) but also reviewed each individual area, the researcher has laid a foundation for expanded research that looks beyond the elementary school level. An additional area of focus for future research would be an examination and comparison of the practices used by elementary, middle and high school principals to create conditions for change, specifically looking at each aspect of professional capital to include human, social and decision making capital. The unique structure of elementary, middle and high school programs may lend themselves to strengths and weaknesses in relationship to the development of each aspect of professional capital as well as the collective sum of human, social and decision making capital.

Future research could examine the behaviors of other school leaders that create conditions for change. Many schools have more than one building level administrator
and may incorporate a model that includes a leadership team. The instructional coaching model is used in many school districts throughout the country to provide embedded professional development, supporting the growth of teachers in regards to planning, instruction, assessment and professional decision making. One principal in this study cited the use of an instructional coach as a means of supporting teachers, in the open-ended response on the principal survey. An analysis of schools using varied leadership models to implement change through the development of professional capital could be an avenue for future research.

This is a foundational piece of research that has implications for educational leadership. However, as shared above, the demographics of the three schools included in this study are similar in that there are high levels of low income students as well as high levels of English Language Learners as compared with state averages. These profiles impact programs and resources offered to students and may thereby affect the principals’ development of specific areas of professional capital in line with the needs of students and staff. Future research could specifically examine the development of professional capital for schools with alternate demographic profiles or may even seek to compare schools with distinct and varied demographic profiles to allow for more generalized conclusions based on data obtained from various schools.

Teacher experience may have a direct impact on the principal’s development of professional capital as a whole as well as their development of each individual aspect of professional capital including human, social and decision making capital. Novice and less experienced teachers may only be familiar with the Common Core Standards and
may have received direct training and experience in the implementation of Common Core through teacher preparation programs. Veteran teachers, who have implemented previous state standards, will require specific professional development at the school/district level to understand the educational shifts required by the Common Core. These teachers may require training on new resources, instructional methods and assessments to support their instruction. Future research may seek to compare the perceptions of principals and teachers, from similar school settings, regarding principal development of teacher professional capital for teachers at various stages of their teaching career (e.g., 1-2 years, 3-4 years, 5-6 years and 7 or more years). This may allow researchers to draw conclusions concerning the impact of on boarding and teacher burnout as they pertain to the development of each aspect of professional capital.

Teachers at various career stages may have unique needs in terms of their development of human, social and decision making capital.

As shared previously, this research was limited by a low response rate. Future research could address similar research questions using a different approach or methodology for collecting data. Each of the recommendations for future research could implement a case study design that incorporates interviews of principals and qualifying teachers, in an attempt to provide a more in-depth view of the research questions posed. A case study design allows for clarification and follow-up questions based on the respondents’ answers and the feedback provided. A case study design would allow the researcher to probe respondents in order to gain a deep understanding of their perspective
regarding behaviors principals used to create positive conditions for change. This design could replace or complement the survey method used in this study.

The surveys used in this research were specifically aligned to perceptions pertaining to the principals’ development of professional capital. Questions contained in the surveys did not elicit information about factors that may have impeded a principal’s development of one or more aspects of professional capital. Impeding factors could include a myriad of things such as district support, time, allocation of resources, principal training and development, teacher experience, teacher turnover rate, school size and staffing, implementation of specialized programs and demographic information of teachers and students. Future research could extend the survey included in this study to identify factors that may have impeded the principals’ development of professional capital as well as provide opportunities for principals and teachers to identify why the principal focused on specific aspects of professional capital at a given time.

Leadership remains a critical school-level factor associated with student learning (Hornung et al., 2010; Jacques et al., 2012). Future research may look to narrow the range of participants to a specific subgroup of schools based on student growth and achievement. Researchers could examine the behaviors of principals within schools that have demonstrated a specific level of growth and/or achievement during the implementation of the Common Core. Using a mixed methods design, similar to that used in this study, researchers could identify the relationship between various levels of student growth/achievement and the perception of behaviors displayed by principals that
created positive conditions for change by supporting the professional capital of teachers during Common Core implementation.

Building on this literature, future research could continue an analysis of elementary school Common Core implementation in the state of Kentucky, rooted in the framework of developing professional capital, in numerous ways. Researchers could target an in-depth analysis of specific behaviors related to the development of professional capital which were identified by principals and/or teachers as areas for growth. Future research could examine the effective strategies and practices employed by principals who provide individual coaching and mentoring to teachers as a means of enhancing their human capital.

Leadership that supports social capital through the development and collaboration of adults enhances the success of all in the school environment (Hargreaves & Fullan, 2012; Hord, 2008). The data from this research suggests that for the three schools included in this study principals demonstrated the lowest level of favorable agreement for questions pertaining to their development of social capital. Future research may look to identify specific relationships between the principals’ development of social capital and human capital as well as the development of social capital in relationship to decision making capital. On a number of questions regarding the principals’ development of social capital the teachers demonstrated a higher level of favorable agreement than the principal, suggesting that principals viewed themselves as not developing various aspects of social capital despite a favorable response from teachers. For example, the teachers from school three demonstrated strong agreement for the survey question, “The principal
has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches,” whereas the principal demonstrated a lower level of favorable agreement. This discrepancy in data suggests that future research may look to employ methodologies that allow the researcher to drill deeper into respondents’ feedback to determine why principals may hold themselves to a different standard than the teachers.

In the area of social capital future research could also specifically target practices used to develop the collective skills and capabilities of teacher teams in addition to those individual teachers. Doing so will draw attention to building the capacity of groups of teachers. The Kentucky Department of Education developed The Continuous Instructional Improvement Technology System (CIITS) as a tool to support innovation and change by enhancing the collaboration between teachers and administrators across the state. As shared on the Kentucky Department of Education Website, “The Continuous Instructional Improvement Technology System, or CIITS, is a multi-phase, multi-year project designed to provide Kentucky public school educators with the 21st-century resources they need to carry out highly-effective teaching and learning in every classroom in Kentucky” (Kentucky Department of Education: CIITS Overview, 2015, para. 1). Teachers are able to look beyond their own school or district to share lesson plans, assessments and resources aligned to the Common Core Standards. Future research could examine the behaviors of principals who supported use of available resources through CIITS, teacher networks and consultants.
The impact of school leaders as it relates to the implementation of educational reform has been well documented (Achieve, 2012; Fullan, 2002; Marzano, Waters & McNulty, 2005; Robinson, Lloyd & Rowe, 2008; Waters, Marzano & McNulty, 2004). The United States has a long history of educational reform and initiatives that support organizational change. Common Core represents a recent reform effort aimed at providing high standards for learning, aligned with college and career readiness, to all students regardless of where they live. The leadership behavior of principals has a direct impact on the climate and effectiveness of schools (Christensen, Marx & Stevenson, 2006; Cotton, 2003; Marzano et al., 2005; Norton, 2003) and is essential to the success of students as well as the development of teachers. Understanding principal leadership behaviors that support change is critical to any reform effort. Future research should explore various reform efforts centered on institutional change to determine the impact that principal development of professional capital has on creating conditions for such change to occur. This study serves as a foundational piece of research by which others may build upon, to explore the impact principals have on creating conditions for change during the implementation of educational reform.

**Significance to Educational Leadership Practice and Preparation**

This study has a number of implications for educational leadership practice and preparation. Research has demonstrated that principals play a vital role in the development of successful schools (Glanz et al., 2007; Marzano et al., 2005). The leadership of school principals influences the work of teachers and thereby impacts student achievement. Two important takeaways of this research include the competency
of principals in developing social capital as a means of enhancing and extending both human and decision making capital, and the influence of specific principal behaviors in creating conditions for positive change.

**Competency of Principals to Develop Social Capital**

Principals have considerable influence in promoting a culture that embraces educational reform efforts. Fullan (2014) claims that schools with strong social capital lead to school-wide success and that building social capital is an essential role of school principals. Social capital, according to Leana (2011) focuses on the relationship amongst teachers and not only on their individual abilities, knowledge or skills (human capital).

According to this research each principal demonstrated relatively high levels of competency in regards to their development of human capital. For each survey question posed teachers and principals indicated favorable agreement or strong agreement, suggesting that in general principals have hired high quality staff and have developed them as individuals. Developing teachers’ knowledge of content through the evaluation process and by investing in the individual growth and professional development of teachers were areas of notable strength in regards to human capital, as demonstrated through mean teacher scores (n=19) of 3.6 for questions pertaining to these areas of human capital development.

According to Donaldson (2013), to successfully lead the implementation of the Common Core Standards, building leaders need to focus on developing the capacity of teachers through a model of shared leadership and collaboration emphasizing the development of human capital.
An analysis of survey questions regarding the development of decision making capital suggests that this too is an area of relative strength for principals in this study as shown through the mean scores of principals and teachers within a range of 3.0-3.7. These mean scores suggest favorable agreement or strong agreement for four of the five survey questions regarding decision making capital. The area with the highest mean score (3.7) for teachers (n=19) focused on principals requiring teachers to show evidence of student learning related to their teaching. Interestingly, the area of decision making capital with the lowest mean score (3.0) for teachers’ centers on the principal providing opportunities for teachers to observe colleagues to better inform their decisions. Although this question was examined in relationship to decision making capital there is a strong connection to social capital and the development of teams through collaboration and shared decision making.

Fullan (2001) shares that school culture has a significant positive or negative impact on school improvement and argues that teacher capacity is an essential component of successful school reform. Collaboration as a means of fostering the collective capacity of teachers is at the heart of social capital and has a direct and positive impact on human and decision making capital. Developing the collective capacity of teachers requires principals to create opportunities for teachers to participate in shared decision making, work in teams, engage in discourse, and seek opportunities to reach beyond the school for resources, information and ideas, all within a positive and trusting school environment. Results from this research suggest that principals demonstrate the lowest level of competency in regards to fostering the social capital of teachers, which has a direct
impact in developing the knowledge and skills of all teachers by allowing them to profit from the expertise, training and knowledge of others (Fullan 2014; Hargreaves & Fullan, 2012; Leana, 2011). This study reveals two specific areas of social capital that principals must consider when implementing reform such as the Common Core. Survey data demonstrates unfavorable agreement for the question pertaining to the principal focusing greater attention on the development of individual teacher capabilities (human capital) as compared to the collective capabilities of teams of teachers (social capital). In regards to leadership practice, this result implies that principals must focus time on developing their own skills to promote and enhance the social capital of teachers through the development of teacher teams with opportunities for shared planning, collaboration and professional growth that move beyond the learning of any one individual teacher. Principals must promote the collaboration of the team. Results from Leana’s (2011) study of math teachers in New York City revealed that the students of highly capable teachers outperformed those of less capable teachers supporting the need to develop the human capital of teachers. However, and of greater significance, was the relationship between the human capital and the social capital of teachers. Leana’s research demonstrated that students of teachers with strong human capital who also demonstrate strong social capital showed the highest gains in math achievement.

Results from this study suggest the need for principals to look beyond their own schools to support teacher innovation, growth and change. When asked if their principals look beyond their own school for ideas and resources, teachers indicated unfavorable agreement with a mean score of 3.5. The social capital of principals and their ability to
foster this in teachers has been found to have a significant impact on school performance. Higher levels of student achievement on standardized math assessments, have been found in schools with principals who spend time building external relations (Leana & Pil, 2006). Researchers have found that the social capital of teachers is connected to the success or failure of reform initiatives (Penuel et al., 2009). In implementing educational reform principals must align their professional practices with strategies that enhance the social capital of teachers which will thereby positively impact their human and decision making capital through collaboration and trust. As a means of increasing student success, principals must purposefully and strategically address the social capital of teachers. It is in the best interest of school districts to provide ongoing instruction and professional development to principals on the development of social capital. It is further suggested that principals develop professional networks outside of their own school district as a means of enhancing their own professional capital.

The Influence of Principal Behaviors in Creating Conditions for Positive Change

Reform efforts and federal initiatives such as Race to the Top and No Child Left Behind have led to increased accountability for both principals and teachers and have given momentum to the task of redefining the roles and responsibilities of building level administrators. School leaders must facilitate systematic change to create new ways of conducting school throughout the K-12 systems (Reed, 2013). Results of this study support the need for principals to examine the influence their behavior has on creating conditions for positive change in an era of educational reform.
Results of the principal and teacher surveys included in this study revealed that school one consistently demonstrated lower mean scores for favorable agreement for survey questions in the areas of social and decision making capital. In several instances, the mean score for teachers from school one (n=5) was below a 3.0 (agreement) as compared to the mean scores of teachers from school two (n=6) and school three (n=8) with mean scores above 3.0. Acknowledging the discrepancies in the data between the three schools supports the notion that principal behaviors are important and influence the culture of a school by creating positive or negative conditions for change. Based on lower mean scores for the teachers from school one, it likely that teachers were less equipped to implement the Common Core as the behaviors of the principal did not consistently support the development of social and decision making capital. Specifically, the mean scores for principal one related to the following questions pertaining to social capital were not only lower than the mean scores for the other two schools included in this study but also demonstrated mean scores below 3.0 (agreement): (1) The principal cultivates positive and trusting relationships with and between staff members had a mean score of 2.6 for teachers from school one, as compared to a mean score of 3.5 and 3.9 for schools two and three respectively, and (2) The principal facilitates teacher learning more often than he/she directs the learning which had a mean score of 2.6 for teachers from school one as compared to a mean score of 3.3 and 3.5 for schools two and three respectively.

In the area of decision making capital teachers from school one demonstrated a lower mean score as compared to other schools, with a mean score below 3.0 (agreement)
for the following questions: (1) The principal has provided teachers with opportunities to observe colleagues to better inform their decisions (e.g., instructional rounds, classroom observations) had a mean score of 2.6 for teachers from school one as compared to mean scores of 3.0 for school two and 3.5 for teachers from school three, and (2) The principal encourages teachers to reflect on their planning, instruction and assessments as an individual rather than making changes based on team decisions, where school one had a mean score of 2.8 for teachers as compared to scores of 4.0 and 3.9 for schools two and three respectively, and (3) The principal actively demonstrates his/her respect for teacher judgement (e.g., by asking questions instead of giving teachers answers), where school one had a mean teacher score of 2.6 as compared to the mean teacher scores for school two (3.5) and school three (3.8).

In examining the perceptions of teachers and principals regarding principal behaviors that created positive conditions for change during the implementation of the Common Core it is important to examine the specific differences amongst the three schools regarding principal behaviors, as described above. Principal behaviors influence change by creating conditions that support change through the development of the professional capital of teachers. The discrepancies in the data as described above are significant to educational leadership as they reinforce the importance of ongoing monitoring of principal practices through self-reflection, feedback and principal evaluation. Understanding discrepancies between principal and teacher perceptions is also essential as it provides principals with feedback regarding their behaviors and professional practices. It is recommended that principal evaluations specifically address
strengths and weakness of principals in relationship to observable behaviors that create conditions for positive change through the development of human, social and decision making capital. Doing so will afford principals with an opportunity to understand their influence in creating conditions for change and adjust behaviors that inhibit change, when implementing educational reform. Collecting feedback from various stakeholders will support principals in building the collective capacity of teachers, which has a direct impact on student achievement. DuFour and Marzano (2011) state that, “research now supports what practitioners have known for decades: powerful school leadership on the part of the principal has a positive effect on student achievement” (p. 48). As demonstrated through this research study, school leaders must understand how their behaviors influence all aspects of school life and should continuously assess specific behaviors they engage in that create or inhibit conditions for change. This study adds to the research on school leadership as it provides information to support principals in identifying specific behaviors that develop the professional capital of teachers to support educational reform.

Summary of Findings

In summarizing the findings, the research questions that drove this study found that principals demonstrated the highest level of success in relationship to their development of human capital. As shared in Table 10, the collective mean scores for teachers, for the most part, mirrored those of principals with principal mean scores in the area of human capital, ranging from 3.0-3.66 and teacher mean scores ranging from 3.5-3.6. Principals and teachers report the highest mean score in the area of human capital for
the question pertaining to principal behaviors that demonstrate an investment in the teachers’ individual growth and professional development. Beyond the support of individual teacher development principals and teachers reported favorable agreement for questions pertaining to behaviors of principals that support the following areas of human capital: (1) hiring and maintaining a quality teaching staff, (2) use of formal and informal observations to develop teacher content knowledge and skills, as well as (3) creating conditions for change through feedback provided outside of the formal evaluation process. Each of these directly relates to the development of human capital.

Interestingly, principal one strongly disagreed that she consistently provides teachers with individual mentoring and coaching regarding their practice, whereas her teachers indicated agreement with this statement. This significant discrepancy indicates that there may be confusion on the part of participants regarding the term “consistently” or that teachers may have different expectations for individual mentoring on the part of the principal. In summarizing this data, the researcher suggests that teachers and principals develop a concrete understanding of behaviors associated with the development of human capital and the importance of each.

There was less favorable agreement pertaining the principals’ development of social capital during the implementation of Common Core as compared to their development of human capital. However, principals and teachers from each of the three schools collectively reported favorable agreement for five of the seven survey questions, which demonstrate relative strengths in regards to the principals’ development of social capital. Strengths identified for principal behaviors that cultivated the social
development of teachers included: (1) The principal has included multiple stakeholders in the development of a shared vision, (2) The principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment, (3) The principal cultivates positive and trusting relationships with and between staff members, (4) The principal facilitates teacher learning more often than she directs the learning, and (5) The principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches. It is important to note that data for teachers from school number one (n=5) shows a mean score lower than the average mean of teachers from all three schools combined (n=19) for the five questions listed above. Examining the data by school demonstrates the importance of a larger sample size, as each individual piece of data has a greater impact on the overall mean teacher score, when a lower sample size exists. Reviewing the data for each of the three schools has led this researcher to conclude teachers generally perceive their principal as exhibiting the behaviors listed above to develop social capital, but the researcher has also concluded that that principal one should focus on developing her skills to cultivate positive and trusting relationships as well as refining skills to facilitate learning as opposed to directing it.

This study identified two specific principal behaviors as areas of weakness in regards to principal development of social capital. The first area focuses on the principals impeding the social capital of teachers by looking only at internal resources and structures to develop their teachers’ ability to innovate, grow and change. Based on survey results there was general agreement between principals and teachers that principal
behaviors do not foster the development of social capital by looking beyond the school or district for new ideas and resources. Principals must encourage networking and professional discourse to develop opportunities outside of those available within the existing school environment as a means of broadening the social capital of teachers.

This study also found that teachers and principals generally perceive the principal as focusing greater attention on the development of individual teachers without building the capacity of teachers through the development of teacher teams. Principals who focus more time on the development of individual teachers impede the development of social capital, which is a necessary condition to maximize student achievement (Fullan, 2014; Leana, 2011; Leana & Pil, 2006). This study reinforces the significant impact collaboration within and beyond the school has on creating conditions for change through the development of social capital. As shared by Minckler (2014), identifying the conditions under which social capital is formed and sustained, provides school leaders with tools they can use to improve teaching and ultimately student learning. In order to develop effective organizations principals must strategically develop the collective capacity of teams of teachers as opposed to focusing their attention on the development of one teacher at a time.

There is general alignment and agreement regarding the collective perceptions of principals and those of the teachers as it relates the principal behaviors that support the development of the decision making capital of teachers during the implementation of the Common Core. Data presented demonstrates favorable agreement that the principals from all three schools engaged in behaviors to develop decision making capital by
empowering teachers to make judgments about their teaching, by providing opportunities for teachers to observe other professionals, by asking teachers to share evidence of student learning aligned to teaching practices and by demonstrating respect for the decisions made by teachers. Asking teachers to provide evidence that their teaching has positively impacted student learning was the principal behavior with the highest mean teacher score of 3.7, indicating that this is a collective strength of Kentucky principals who participated in this research, followed closely by principal behaviors the empower teachers to make decisions, with a mean teacher score of 3.6. However, similar to findings related to social capital, principals are perceived as developing the individual teacher in this area as opposed to the team, through an emphasis on individual reflection pertaining to planning, instruction and assessment as opposed to supporting the collective reflection and decision making of teachers.

Existing research suggests that principals deliberately improve the skills and talents of teachers through the development of decision making capital by orchestrating structured experiences to support and challenge teachers as professionals (Fullan & Hargreaves, 2016). This study supports the development of specific principal behaviors to improve the collective decision making skills of all teachers.

The United States has a long history of implementing educational reform. The Common Core Standards represent a recent movement to create national standards stemming from previous reform efforts. Understanding principal leadership behaviors that create conditions for positive change, by building the collective capacity of teachers, is critical to any reform effort. Investing in the professional capital of teachers, principals
can transform teaching and learning for every student. As shared by Fullan and Hargreaves (2012), more successful countries, “attract and develop the professional capital of all their teachers, in all schools, day after day, year after year” (p. 1).
APPENDIX A

PRINCIPAL RECRUITMENT LETTER
Dear Kentucky Elementary School Principal,

I am seeking your participation in a dissertation Effective Leadership for the Implementation of the Common Core State Standards: Principal Behaviors that Develop Professional Capital to Create Positive Conditions for Change.

You have received this email and qualify for this study because you are currently working as a principal in a Kentucky elementary school that has implemented the Common Core State Standards. As a Kentucky elementary school principal, your participation in this study will provide this researcher with information about the leadership behaviors you used to create conditions for positive change during the implementation of the Common Core. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

**Purpose:** The purpose of this research is to learn more about how elementary school principals created conditions for positive change during the implementation of Common Core State Standards, through the development of professional capital. The researcher will use survey data from both principals and teachers to identify specific behaviors principals employed that created conditions for positive change and the impact these behaviors had on student growth, as measured on the Kentucky Performance Rating for Educational Progress (K-PREP).

**Procedures:** If you agree to participate in this study this study, you will be asked to complete an online survey that should take you about 10-15 minutes to complete. Prior to completing the survey, you will be asked to provide consent electronically, via the online survey.

If you agree to participate, you will also be asked questions on your gender, race, work history, and current role.

If you agree to participate you will also be asked to forward the electronic teacher survey to all classroom teachers responsible for implementing the Common Core Standards, following your completion of the principal survey. Teachers will provide their consent electronically, via the online survey. Your consent does not bind your teachers from opting out of this research study.

**Risks and Benefits:** The survey is completely voluntary and you may withdraw from participation at any time without penalty. There are no foreseeable risks involved in participating in this research. Data collected from surveys will be linked but there will be no cross communication regarding data collected.

There are no direct benefits to you for participating. However, if you agree to participate, you will be adding to the body of knowledge regarding educational leadership by helping to answer the following questions:
Confidentiality: The survey will not ask for personal information beyond age, gender, and years of service to the teaching profession, current role, district and school. Due to the administrative structure of elementary schools your information will remain confidential; however, anonymity cannot be afforded to principal participants. Survey Monkey® will be used as the tool to administer and collect the data. This format provides a secure and safe method of collecting data that increases the protection of the confidentiality of participants’ responses. The researcher will mask all data by assigning a random number to each school district and a random letter (or pairing of letters) to each school. For example, Sunshine School in Friendly School District 114 could be identified as 13B. Principal data will be identified with the letter (P) and teacher data will be identified with the letter (T) and a number that is not linked to grade level or subject taught (T1). All information collected by this researcher will only be used for purposes of this study and will only be shared with the researcher’s dissertation advisor.

This research seeks to answer the following questions.

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?

b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?

c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

Contacts and Questions: If you have any questions about the study, please do not hesitate to contact Eileen Brett at 847-945-1075 or at ebrett@luc.edu. You may also contact my dissertation advisor from Loyola University Chicago at 312-915-6336 or at Vcejovi@luc.edu if you have questions about the validity of this study. If you should have questions about your rights as a research participant, please contact the Loyola Compliance Manager at 773-508-2689.

Please click on the link provided to complete the survey. A reminder will be sent to you in two weeks. Click here to access the survey.

Sincerely,

Eileen Brett
APPENDIX B

PRINCIPAL SURVEY WITH THE PRINCIPAL LETTER OF CONSENT
Principal Survey of Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

CONSENT FORM (Principal)

Title: Effective Leadership for the Implementation of the Common Core State Standards: Principal Behaviors that Develop Professional Capital to Create Positive Conditions for Change

Researcher: Eileen Brett

Dissertation Chairperson: Dr. Vesna Cejovic

Introduction: You are being asked to participate in a dissertation research project being conducted by Eileen Brett at Loyola University Chicago, Department of Education, under the supervision of Dr. Vesna Cejovic.

You have received this survey and qualify for this study because you are currently working as a principal in a Kentucky elementary school that has implemented the Common Core State Standards. As a Kentucky elementary school principal, your participation in this study will provide this researcher with information about the leadership behaviors you used to create conditions for positive change during the implementation of the Common Core. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

Purpose: The purpose of this research is to learn more about how elementary school principals created conditions for positive change during the implementation of Common Core State Standards, through the development of professional capital. The researcher will use survey data from both principals and teachers to identify specific behaviors principals employed that created conditions for positive change and the impact these behaviors had on student growth, as measured on the Kentucky Performance Rating for Educational Progress (K-PREP).

Procedures: If you agree to participate in this study, you will be asked to complete this survey that should take you about 10-15 minutes to complete. The questions use a Likert scale (strongly agree, agree, disagree, strongly disagree) in a multiple-choice format that will ask you to determine the extent to which you agree or disagree with behaviors you employed to create conditions for positive changes during the implementation of Common Core. You will also have the opportunity to provide additional information through an open-ended question.

If you agree to participate, you will be asked questions on your gender, race, work history, and current role.

If you agree to participate you will also be asked to forward the teacher recruitment letter asking teachers to voluntarily participate in this research. You will be asked to forward the recruitment letter to all classroom teachers responsible for implementing the Common Core Standards. Your consent does not bind your teachers from opting out of this research study.
Risks and Benefits: The survey is completely voluntary and you may withdraw from participation at any time without penalty. There are no foreseeable risks involved in participating in this research. Data collected from surveys will be linked but there will be no cross communication regarding data collected.

There are no direct benefits to you for participating. However, if you agree to participate, you will be adding to the body of knowledge regarding educational leadership by helping to answer the following questions:
Principal Survey of Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

Consent form continued:

Confidentiality: The survey will not ask for personal information beyond age, gender, and years of service to the teaching profession, current role, district and school. Due to the administrative structure of elementary schools your information will remain confidential; however, anonymity cannot be afforded to principal participants. Survey Monkey® will be used as the tool to administer and collect the data. This format provides a secure and safe method of collecting data that ensures anonymity. The researcher will mask all data by assigning a random number to each school district and a random letter (or pairing of letters) to each school. For example Sunshine School in Friendly School District 114 could be identified as 13B. All information collected by this researcher will only be used for purposes of this study and will only be shared with the researcher’s dissertation advisor.

Contacts and Questions: If you have any questions about the study, please do not hesitate to contact Eileen Brett at 847-945-1075 or at ebrett@luc.edu. You may also contact my dissertation advisor from Loyola University Chicago at 312-915-6336 or at Vcejovi@luc.edu if you have questions about the validity of this study. If you should have questions about your rights as a research participant, please contact the Loyola Compliance Manager at 773-508-2689

Statement of Consent: You will be asked to electronically indicate your consent on the next page of this survey. Your electronic consent indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study. Thank you in advance for your participation.

Sincerely,

Eileen Brett

Doctoral Candidate, Loyola University Chicago
Principal Survey of Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

Thank you for participating in this survey. Your feedback is important. In order to continue you must provide consent by click "Agree."

1. Electronic consent for participation in this survey is required. Please select from the choices below. Clicking on the "Agree" button indicates that:
   - You have read the letter of consent
   - Agree to voluntarily take part in this research which is part of a doctoral dissertation

   - If you do not wish to participate in this research study please decline participation by selecting the "Disagree" button.

   ○ Agree
   ○ Disagree
<table>
<thead>
<tr>
<th>Principal Survey of Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Are you a principal at the elementary school level?</strong></td>
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<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
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<tr>
<td><strong>3. Which of the following grade levels are in your school?</strong></td>
</tr>
<tr>
<td>☐ Kindergarten</td>
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<td>☐ 1st Grade</td>
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<td>☐ 2nd Grade</td>
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<td>☐ 3rd Grade</td>
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<td>☐ 4th Grade</td>
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<td>☐ 5th Grade</td>
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<td><strong>4. How long have you worked as the principal of your current building?</strong></td>
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<tr>
<td>☐ 1-2 years</td>
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<td>☐ 3-5 years</td>
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<tr>
<td>☐ 6-7 years</td>
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<td>☐ 8 or more years</td>
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<td><strong>5. Were you an internal hire as a principal?</strong></td>
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<tr>
<td>☐ Yes</td>
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<tr>
<td>☐ No</td>
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<tr>
<td><strong>6. How many years have you worked in elementary education?</strong></td>
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<tr>
<td>☐ 1 year</td>
</tr>
<tr>
<td>☐ 2-3 years</td>
</tr>
<tr>
<td>☐ 4-5 years</td>
</tr>
<tr>
<td>☐ 6 or more years</td>
</tr>
</tbody>
</table>
7. What type of school district do you work in?
   - Rural
   - Urban
   - Suburban

8. Gender
   - Male
   - Female

9. Please identify your race
   - Caucasian/White
   - Black
   - Hispanic
   - Asian or Pacific Islander
   - American Indian or Alaskan Native
   - Multiracial

10. What is the name of your school district?

11. What is the name of your school?
### Principal Survey of Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

Please indicate your agreement with the following statements regarding your leadership behaviors that created conditions for change during the implementation of the Common Core State Standards.

**12. I have consistently carved out time to provide teachers with individual mentoring and coaching regarding their practice.**
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

**13. I have supported teachers in developing knowledge and skills related to the content that they teach based on formal and informal observations.**
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

**14. I have maintained a high quality teaching staff.**
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

**15. I have invested in the individual growth and professional development of my teaching staff.**
- [ ] Strongly Agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree
16. By providing teachers with continuous feedback outside of the formal evaluation process I have created conditions for change.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

17. I included multiple stakeholders in developing a shared vision.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

18. When looking for ways to innovate, grow and change I focus on my own school and district for ideas and resources.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

19. I have provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

20. I cultivate positive and trusting relationships with and between staff members.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree
21. I have focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

22. I have facilitated teacher learning more often than directing it.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

23. I have created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

24. I empower teachers to make decisions or judgments about their teaching practices and student learning.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

25. I have provided teachers with opportunities to observe their colleagues to better inform their decisions (e.g., instructional rounds, classroom observations).

- Strongly agree
- Agree
- Disagree
- Strongly disagree
<table>
<thead>
<tr>
<th>26.</th>
<th>I encourage teachers to reflect on their planning, instruction and assessments individually, rather than making changes based on team decisions.</th>
</tr>
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<td></td>
<td>Strongly agree</td>
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<td>Agree</td>
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<td></td>
<td>Disagree</td>
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<td></td>
<td>Strongly disagree</td>
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<tr>
<th>27.</th>
<th>I have asked teachers to provide evidence that their teaching positively affected student learning.</th>
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<td></td>
<td>Strongly agree</td>
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<td>Agree</td>
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<td>Disagree</td>
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<td></td>
<td>Strongly disagree</td>
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</tbody>
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<tr>
<th>28.</th>
<th>I actively demonstrate my respect for the judgment of my teachers (e.g., by asking them questions instead of giving them answers)</th>
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<td></td>
<td>Strongly agree</td>
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<td>Agree</td>
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<td>Disagree</td>
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<td></td>
<td>Strongly disagree</td>
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<th>29.</th>
<th>I have created opportunities for teachers to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling.</th>
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<td></td>
<td>Strongly agree</td>
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<td></td>
<td>Agree</td>
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<td></td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30.</th>
<th>I participated in and/or supported teacher participation in our district's leadership network to build capacity and support the professional learning of my staff.</th>
</tr>
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<tr>
<td></td>
<td>Strongly agree</td>
</tr>
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<td></td>
<td>Agree</td>
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<tr>
<td></td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>
31. Is there any other information you would like to share regarding the leadership behaviors you displayed which contributed to creating conditions for change during the implementation of the Common Core Standards?
APPENDIX C

FIRST EMAIL REMINDER FOR PRINCIPAL PARTICIPANTS
Dear Kentucky Elementary School Principal,

This email serves as a follow-up request to participate in an electronic survey regarding principal leadership that creates conditions for positive change. As a doctoral candidate at Loyola University of Chicago, I am conducting research for my dissertation titled: . The purpose of this study is to identify specific leadership behaviors and practices of principals that have positively impacted the implementation of the Common Core Standards, by creating conditions for positive change through the development of professional capital. This research will examine the leadership practices of elementary school principals in Kentucky, which has been identified as a leading state in the implementation of the Common Core State Standards, since 2011.

If you have already submitted the electronic survey emailed to you two weeks ago, thank you for your participation and help in this research study. If not, please click on the link below to complete the survey. A second reminder will be sent out in two weeks. Click here to access the survey.

Sincerely,

Eileen Brett
Doctoral Candidate, Loyola University Chicago
APPENDIX D

SECOND EMAIL REMINDER FOR PRINCIPAL PARTICIPANTS
Dear Kentucky Elementary School Principal,

This email serves as a final request to participate in an electronic survey regarding principal leadership that creates conditions for positive change. As a doctoral candidate at Loyola University of Chicago, I am conducting research for my dissertation titled: . The purpose of this study is to identify specific leadership behaviors and practices of principals that have positively impacted the implementation of the Common Core Standards by creating conditions for positive change, through the development of professional capital. This research will examine the leadership practices of elementary school principals in Kentucky, which has been identified as a leading state in the implementation of the Common Core State Standards, since 2011.

If you have already submitted the electronic survey emailed to you approximately four weeks ago, thank you for your participation in this research study. If not, please click on the link below to complete the survey. The survey will close in five days. Click here to access the survey.

Sincerely,

Eileen Brett
Doctoral Candidate, Loyola University Chicago
APPENDIX E

TEACHER RECRUITMENT LETTER
Dear Kentucky Elementary School Teacher,

I am seeking your participation in a dissertation

You have received this email and qualify for this study because you are currently working as a teacher in a Kentucky elementary school that has implemented the Common Core State Standards. As a Kentucky elementary school teacher, your participation in this study will provide this researcher with information about the leadership behaviors your principal used to create conditions for positive change during the implementation of the Common Core. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

**Purpose:** The purpose of this research is to learn more about how elementary school principals created conditions for positive change during the implementation of Common Core State Standards, through the development of professional capital. The researcher will use survey data from both principals and teachers to identify specific behaviors principals employed that created conditions for positive change and the impact these behaviors had on student growth, as measured on the Kentucky Performance Rating for Educational Progress (K-PREP).

**Procedures:** If you are receiving this recruitment letter your principal has already agreed to his/her participation in this research study. If you agree to participate in this study, you will be asked to complete an online survey that should take you about 10-15 minutes to complete. Prior to completing the survey, you will be asked to provide consent electronically, via the online survey.

If you agree to participate, you will also be asked questions on your gender, race, work history, and current role.

This research seeks to answer the following questions.

Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?
2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the decision making capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making capital of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors that created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for educational leadership?

Contacts and Questions: If you have any questions about the study, please do not hesitate to contact Eileen Brett at 847-945-1075 or at ebrett@luc.edu. You may also contact my dissertation advisor from Loyola University Chicago at 312-915-6336 or at Vcejovi@luc.edu if you have questions about the validity of this study. If you should have questions about your rights as a research participant, please contact the Loyola Compliance Manager at 773-508-2689.

Please click on the link below to complete the survey. A reminder will be sent to you in two weeks. Please click here to access the survey.

Sincerely,

Eileen Brett
APPENDIX F

TEACHER SURVEY WITH THE TEACHER LETTER OF CONSENT
Teacher Survey of Principal Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

Teacher Consent

Thank you for participating in this survey. Your feedback is important. Please read the letter of consent that follows.

CONSENT FORM (Teacher)

Title: Effective Leadership for the Implementation of the Common Core State Standards: Principal Behaviors that Develop Professional Capital to Create Positive Conditions for Change

Introduction: You are being asked to participate in a dissertation research project being conducted by Eileen Brett at Loyola University Chicago, Department of Education, under the supervision of Dr. Vesna Cejovic.

You have received this survey and qualify for this study because you are currently teaching in a Kentucky elementary school that has implemented the Common Core State Standards. As a Kentucky elementary school teacher, your participation in this study will provide this researcher with information about behaviors observed by your school principals that created conditions for positive change during the implementation of the Common Core. Your principal has shared this consent with you as part of his/her voluntary participation in this research study. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

Purpose: The purpose of this research is to learn more about how elementary school principals created conditions for positive change during the implementation of Common Core State Standards, through the development of professional capital. The researcher will use survey data from both principals and teachers to identify specific behaviors that created conditions for positive change and the impact these behaviors had on student growth as measured on the Kentucky Performance Rating for Educational Progress (K-PREP).

Procedures: If you agree to participate in this study, you will be asked to complete the online survey that should take you about 10-15 minutes to complete. The questions use a Likert scale (strongly agree, agree, disagree, strongly disagree) in a multiple-choice format that will ask you to determine the extent to which you agree or disagree with behaviors of your principal that created conditions for positive changes during the implementation of Common Core. You will also have the opportunity to provide additional information through an open-ended question.

If you agree to participate, you will be asked questions on your gender, race, work history, and
current role.

Risks and Benefits: The survey is completely voluntary and you may withdraw from participation at any time without penalty. There are no foreseeable risks involved in participating in this research. Your survey information will not be shared with your principal. Data will be masked in that demographic information will be replaced with a numerical or alpha representation.

There are no direct benefits to you for participating. However, if you agree to participate, you will be adding to the body of knowledge regarding educational leadership by helping to answer the following questions:
**Teacher Survey of Principal Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards**

**Welcome to My Survey**

Thank you for participating in this survey. Your feedback is important. In order to continue you must provide consent by clicking "Agree."

1. Electronic consent for participation in this survey is required. Please select from the choices below. Clicking on the "Agree" button indicates that:

- You have read the letter of consent
- Agree to voluntarily take part in this research which is part of a doctoral dissertation
- If you do not wish to participate in this research study please decline participation by selecting the "Disagree" button.

- [ ] Agree
- [ ] Disagree
Teacher Survey of Principal Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

### Teacher Demographic Information

1. **Yes**
2. **No**

3. **Kindergarten**
4. **1st Grade**
5. **2nd Grade**
6. **3rd Grade**
7. **4th Grade**
8. **5th Grade**

4. **1 year**
5. **2-3 years**
6. **4-5 years**
7. **6 or more years**

5. **1 year**
6. **2-3 years**
7. **4-5 years**
8. **6 or more years**

6. **Male**
7. **Female**
7. Please identify your race
   ○ Caucasian/White
   ○ Black
   ○ Hispanic
   ○ Asian or Pacific Islander
   ○ American Indian or Alaskan Native
   ○ Multi/racial

* 8. What is the name of your school?

* 9. What is the name of your school?
### Teacher Survey of Principal Leadership Practices that Created Conditions for Change During the Implementation of the Common Core State Standards

#### Teacher Survey of Principal Leadership Practices

**10.** My principal has consistently carved out time to provide me with individual mentoring and coaching regarding my practice.
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

**11.** My principal has supported me in developing knowledge and skills related to the content that I teach based on his/her formal and informal observations.
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

**12.** My principal has hired and maintained a high quality teaching staff.
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree

**13.** My principal has invested in my individual growth and professional development.
- [ ] Strongly agree
- [ ] Agree
- [ ] Disagree
- [ ] Strongly disagree
14. By providing me with continuous feedback outside of the formal evaluation process my principal has created conditions for change.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

15. My principal has included multiple stakeholders in the development of a shared vision.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

16. When looking for ways to innovate, grow and change my principal has focused primarily on our school and district for ideas and resources.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

17. My principal has provided frequent opportunities for teachers to work collaboratively and engage in discourse about students, instruction, planning and assessment.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

18. My principal cultivates positive and trusting relationships with and between staff members.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree
19. My principal has focused greater attention on building individual teacher capability rather than the collective capabilities of groups/teams of teachers.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

20. My principal facilitates teacher learning more often than he/she directs the learning.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

21. My principal has created opportunities for teachers to receive feedback from peers, other administrators and/or coaches.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

22. My principal empowers me to make decisions or judgments about my teaching practices and student learning.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

23. My principal has provided me with opportunities to observe colleagues to better inform my decisions (e.g., instructional rounds, classroom observations).

- Strongly agree
- Agree
- Disagree
- Strongly disagree
24. My principal encourages me to reflect on my planning, instruction and assessments as an individual rather than making changes based on team decisions.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

25. My principal asks me to provide evidence that my teaching has positively affected student learning.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

26. My principal actively demonstrates his/her respect for my judgement (e.g., by asking me questions instead of giving me answers).
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

27. My principal has created opportunities for me to use the Continuous Instructional Improvement Technology System (CIITS) to support instruction, assessment and scheduling.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree

28. My principal participated in our district’s leadership network and/or supported teacher participation to build capacity and support the professional learning of our staff.
   - Strongly agree
   - Agree
   - Disagree
   - Strongly disagree
29. Is there any other information you would like to share regarding the leadership behaviors displayed by your principal that created conditions for change during the implementation of the Common Core Standards?
APPENDIX G

FIRST EMAIL REMINDER FOR TEACHER PARTICIPATION
Dear Kentucky Elementary School Teacher,

This email serves as a follow-up request to participate in an electronic survey regarding principal leadership that creates conditions for positive change. As a doctoral candidate at Loyola University of Chicago, I am conducting research for my dissertation titled: . The purpose of this study is to identify specific leadership behaviors and practices of principals that have positively impacted the implementation of the Common Core Standards by creating conditions for positive change, by developing the professional capital of teachers. This research will examine the leadership practices of elementary school principals in Kentucky, which has been identified as a leading state in the implementation of the Common Core State Standards, since 2011.

If you have already submitted the electronic survey emailed to you two weeks ago, thank you for your participation and help in this research study. If not, please click on the link below to complete the survey. A second reminder will be sent out in two weeks. Please click here to access the survey.

Sincerely,

Eileen Brett

Doctoral Candidate, Loyola University Chicago
APPENDIX H

SECOND EMAIL REMINDER FOR TEACHER PARTICIPATION
Dear Kentucky Elementary School Teacher,

This email serves as a final request for teacher participation in an electronic survey regarding principal leadership that creates conditions for positive change. As a doctoral candidate at Loyola University of Chicago, I am conducting research for my dissertation titled: . The purpose of this study is to identify specific leadership behaviors and practices of principals that have positively impacted the implementation of the Common Core Standards by creating conditions for positive change, through the development of teacher professional capital. This research will examine the leadership practices of elementary school principals in Kentucky, which has been identified as a leading state in the implementation of the Common Core State Standards, since 2011.

If you have already submitted the electronic survey emailed to approximately four weeks ago, thank you for your participation in this research study. If not, please click on the link below to complete the survey. The survey will close in five days. Please click here to access the survey.

Sincerely,

Eileen Brett

Doctoral Candidate, Loyola University Chicago
APPENDIX I

REVISED TEACHER RECRUITMENT LETTER
Dear Principal,

Earlier this year you kindly participated in a survey for my doctoral research on school leadership in the implementation of common core standards in Kentucky.

The next step in this research is a brief (approx. 10 minutes) survey for the teachers at your school. I would truly appreciate your support in securing responses from your teachers in order to reach the required teacher response rate.

I would appreciate it if you would please forward the TEACHER EMAIL below requesting teacher participation.

For your convenience, I have also included a brief SAMPLE INTRODUCTION you can include for context when forwarding the email. (Even if you have already forwarded an earlier teacher request, I would appreciate if you would forward this again).

Thank you VERY MUCH for your support of this project. I look forward to sharing the completed research with you. Please contact me if you have any questions at: 847-945-1075 or at ebrett@luc.edu.

SAMPLE PRINCIPAL INTRODUCTION FOR FORWARDING TEACHER EMAIL

Subject: Your Participation Needed in Education Research Survey

Dear Team,

A few weeks ago, I took a survey for a research project on leadership in the implementation of common core in Kentucky. The next step in the project is for classroom teachers at our school to take a similar, very brief survey. The email below includes a link to the survey and full details on the research. Thanks for taking part.

EMAIL FOR TEACHERS

Subject: Your Participation Needed in Education Research Survey

Dear Teacher,

As part of my doctoral research at Loyola University Chicago, your principal recently completed a survey on the implementation of common core standards in Kentucky.

As a next step, your response is needed on a very brief survey for teachers at your school; it should take no more than ten minutes to complete. Your response would be appreciated by June 1, 017.
You can access the survey immediately using this link

Full details of the project are below. If you have any questions, please contact me at: 847-945-1075 or at ebrett@luc.edu.

Thank you in advance for your participation.

**Complete Project and Survey Information**
I am seeking your voluntary participation in a dissertation research project. I am conducting as part of my doctoral research through Loyola University Chicago, Department of Education, under the supervision of Dr. Vesna Cejovic.

You have received this email and qualify for this study because you are currently teaching in a Kentucky elementary school that has implemented the Common Core State Standards. As a Kentucky elementary school teacher, your participation in this study will provide this researcher with information about behaviors observed by your school principals that created conditions for positive change during the implementation of the Common Core. Your principal has shared this consent with you as part of his/her voluntary participation in this research study. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

**Title:** Effective Leadership for the Implementation of the Common Core State Standards: Principal Behaviors that Develop Professional Capital to Create Positive Conditions for Change.

**Purpose:** The purpose of this research is to learn more about how elementary school principals created conditions for positive change during the implementation of Common Core State Standards, through the development of professional capital. The researcher will use survey data from both principals and teachers to identify specific behaviors that created conditions for positive change.

**Procedures:**
If you agree to participate in this study, you will be asked to complete an online questionnaire that should take you about 10-15 minutes to complete. The questions use a Likert scale (strongly agree, agree, disagree, strongly disagree) in a multiple-choice format that will ask you to determine the extent to which you agree or disagree with behaviors of your principal that created conditions for positive changes during the implementation of Common Core. You will also have the opportunity to provide additional information through an open-ended question. If you agree to participate, you will be asked questions on your gender, race, work history, and current role.

**Risks and Benefits:** The survey is completely voluntary and you may withdraw from participation at any time without penalty. There are no foreseeable risks involved in participating in this research. Your survey information will not be shared with your
principal. Data will be masked in that demographic information will be replaced with a numerical or alpha representation. There are no direct benefits to you for participating. However, if you agree to participate, you will be adding to the body of knowledge regarding educational leadership by helping to answer the following questions: Based on the perceptions of principals and teachers from elementary schools in Kentucky:

1. What leadership behaviors did the principal engage in to build teacher capacity through the development of human capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the human capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the human capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the human capital of teachers?

2. What leadership behaviors did the principal engage in to build teacher capacity through the development of social capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the social capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the social capital of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the social capital of teachers?

3. What leadership behaviors did the principal engage in to build teacher capacity through the development of decision making capital, to create conditions for positive change related to the implementation of the Common Core Standards?
   a. What leadership behaviors do principals report engaging in to develop the decision making capital of teachers?
   b. What leadership behaviors do teachers report their principals engaged in that developed the decision making of teachers?
   c. As reported by principals and teachers, what are the commonalities and discrepancies of the leadership behaviors of principals that developed the decision making of teachers?

4. Do teachers and principals share a common perspective regarding principal behaviors the created conditions for change through the development of professional capital during the implementation of the Common Core and what are the implications for
educational leadership?

Confidentiality:
The survey will not ask for personal information beyond age, gender, and years of service to the teaching profession, current role, district and school. Survey Monkey® will be used as the tool to administer and collect the data. This format provides a secure and safe method of collecting data that ensures anonymity. All information collected by this researcher will only be used for purposes of this study and will only be shared with the researcher’s dissertation advisor.

Contacts and Questions:
If you have any questions about the study, please do not hesitate to contact me at 847-945-1075 or at ebrett@luc.edu.

You may also contact my dissertation advisor from Loyola University Chicago at 312-915-6336 or at Vcejovi@luc.edu.

If you have questions about the validity of this study. If you should have questions about your rights as a research participant, please contact the Loyola Compliance Manager at 773-508-2689.

Statement of Consent:
You will be asked to electronically indicate your consent via the online questionnaire. Your electronic consent indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study. Thank you in advance for your participation. Please click on this link to access the survey. Please complete this survey by June 1, 2017.

Sincerely,

Eileen Brett

Doctoral Candidate, Loyola University Chicago
REFERENCE LIST


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VITA

Eileen Brett is the daughter of Harold Yatvin and Barbara Yatvin-Wax. She was born in New York, New York on January 13, 1967. She currently resides in a suburb of Chicago with her husband Steve and daughter Haley. She graduated from The University of Illinois, in 1989 with a Bachelor of Arts degree in Special Education. In 1994, she completed a Master of Arts program in Special Education from Hunter College, New York, followed by an advanced degree in Educational Leadership in 1998 from Hunter College, New York.

Eileen Brett has worked in education for 29 years in the capacity of special education teacher, special education coordinator, literacy coach, assistant principal and principal. Eileen Brett is currently the principal of Wilmot Elementary School in Deerfield Illinois, since 2004.
DISSERTATION COMMITTEE

The dissertation submitted by Eileen B. Brett has been read and approved by the following committee:

Dr. Vesna Cejovic, Director
Clinical Assistant Professor and Faculty Coordinator of School and Community Partnerships, School of Education
Loyola University Chicago

Dr. Brigid Schultz
Clinical Assistant Professor and Faculty Director of Dual Credit Program, School of Education
Loyola University Chicago

Dr. Celia Arresola
Director of Special Education Services
ECHO Joint Agreement
South Holland, Illinois