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The Social Intelligence of Principals: Links to Teachers' Continuous Improvement

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DEDICATION

To Mark, Tyler, Melanie, Louise, and Elizabeth

First and foremost I dedicate this dissertation to my husband Mark. Throughout the periods of frustration, he convinced me I was smart enough to complete a dissertation. Without his love, patience and understanding, I undoubtedly would never have reached this milestone. I need to relearn how to cook now.

My two children, Tyler and Melanie, showed me children are different in every way. While growing up, they taught me multiple ways to reach students that helped me become a better educator. As they experienced college, they always would take the time to ask, "How's that going anyway, Mom?" It meant a lot.

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Elizabeth, my yoga instructor, showed me the root of frustration. I learned to embrace gratitude, peace, joy and love, stay in the present without judgment, and leave my ego at the door.

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Abstract

Despite multiple efforts to reform 21st education to better meet the needs of all students, school improvement successes have been sporadic and debatable. Research suggests that significant improvement lies within the purview of teachers and principals, and this current research provided the underpinnings for the study. Based on neuroscience research and the continuous improvement concept, I examined linkages between principals' social intelligence and teachers' continuous improvement. Using a mixed method sequential explanatory research approach, the study consisted of four phases that employed both quantitative and qualitative measures. Massachusetts' principals (127) and teachers (331) were contacted by email to participate in the study. Participation unfolded in the following manner based on the four phases: (a) Phase One: 34 principals and 47 teachers, (b) Phase Two: 22 principals and 20 teachers, (c) Phase Three: 9 principals and 5 teachers, and (d) Phase Four: 4 principals and 41 teachers. The data analysis generated four categories of key findings: *Educational Leadership Behavior, School Culture, Principals' Body Language, and Similar and Dissimilar Perceptions of Teachers and Principals.* Overall, these findings demonstrated that both principals and teachers view social intelligence critical to educational leadership and teachers' improvement. Specific field recommendations were delineated for principals, superintendents, teachers, and higher education institutions. Future research recommendations suggested further study of social intelligence and possible linkages to (a) gender differences, and (b) motivation linked to personality traits to expand the leadership capacity of principals.

Keywords: principals' social intelligence, teachers' continuous improvement, school culture, perceptions of teachers and principals.

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CHAPTER ONE: INTRODUCTION

Personal Interest Statement

My twelve-year experience as a middle school principal in two different districts, plus fifteen years as a teacher provided the foundation for my core belief that the actions needed to reform American education must take place primarily with the practitioners. It is the teachers and school level leadership learning together who will lead the necessary reform efforts to significantly impact student learning.

Moreover, if students authentically and passionately insist on beneficial learning opportunities from their teachers, the call for change will compel policymakers, politicians and citizens to prioritize holistic educational reform. American education is supposed to be about children's learning and emotional growth; therefore, it makes sense that the education and the neuroscience fields join together to explore the impact of human behavior on education. The desire to contribute to educational reform, combined with my keen interest in social intelligence, propelled me to examine possible linkages between principals' social intelligence and teachers' continuous improvement.

Following the introduction, Chapter One briefly explains the nature of the study in the following manner: (a) statement of the problem, (b) statement of the purpose, (c) research questions, (d) study design, (e) delimitations and potential bias, (f) key definitions, (g) significance of the study, and (h) chapter outline.

Statement of the Problem

A historical review of what founded American education might shed light on the ongoing debate over solutions for school reform. The United States Constitution was

ratified in 1787 to adopt the principles guiding the new American government beginning with the preamble:

> We, the People of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the Blessings of Liberty to ourselves and our posterity, do ordain and establish this constitution for the United States of America (Mount, 2010, p. 1).

In essence, the written preamble introduced the Constitutional document by addressing the needs of the common men and women of America. To diminish the tensions between states, the document guaranteed American citizens to live peacefully in a unified country. Moreover, the preamble proposed a promise of safety, justice and freedom for all Americans and their future offspring (Mount, 2010). In 1968, the 14th amendment protected the equal rights of all American citizens, regardless of race.

Prior to the creation of the Constitution, Thomas Jefferson weaved into the Declaration of Independence "that all men are created equal," which included educating all Americans equitably. These two documents informed contemporary education policy and practice to preserve that the "United States of America is founded on the idea of educational equality" (Darling-Hammond, 2010, p. 27); however, 250 years later, inequitable and inadequate educational experiences still exist for American children nationwide.

Unfortunately, not only do children's place of residence dictate opportunity, but within a community, students' race and/or economic status also influence educational experiences. Educators, researchers and politicians debate the problems, and offer numerous solutions for reform, yet the achievement gap remains between the advantaged

and disadvantaged students. Without the heightened awareness of democracy in America, school reform might be compromised in many communities.

The concept of democracy and equity in education is discernibly absent in many American communities (Darling-Hammond, 2010). With the onset of low-income housing, communities have shifted to a diverse population of color, race, languages and socioeconomic status. For example, minority groups such as Hispanics and Asians left larger metropolitan areas in search of a suburban lifestyle. With the migration into suburban areas, the influx of minorities strained the social and educational resources in many communities (Lapkoff & Li, 2007).

White middle to upper class communities might now find conflict with prioritizing their social and economic resources to fund education. Simply put, possible tension between the "haves-and-the-have-nots" links directly to the distribution of resources. To insure their children receive resources and benefits before the economically disadvantaged, many times economically advantaged parents avail themselves to school districts in various ways. In 1977, Bourdieu labeled this type of behavior the theory of social capital (as cited in Allen, 2010).

Bourdieu (1977) originated the theory of social capital around the notion that people access and benefit from social networks to acquire greater social standing for enhanced lives (as cited in Allen, 2010). Lamont and Lareau (1999) discussed schools as common networks for parents to seek opportunities for their children and to gain social capital (as cited in Allen, 2010). For example, able parents acquire social capital by volunteering during the school day to help where needed, which builds relationships with faculty. These relationships evolve into increased social capital. A common form of

prominent social capital translates into involved parents who often request higher quality teachers for their children. Typically, working parents spend less time in schools decreasing their interaction with faculty, thus reducing their social capital. Unless principals are aware of the insidious power of social capital, the inequitable learning experiences for students will prevail.

In addition to social capital, Bourdieu (1977) explained how social inequalities are promoted and replicated in schools through his cultural capital theory (as cited in Allen, 2010). "Cultural capital is the 'high brow' bourgeois knowledge that one gains and exercises as a result of middle or upper class standing" (as cited in Allen, 2010, p. 3). Bourdieu also emphasized that the negative affects of social and culture capital festers in schools unless school leaders intervene.

Even though the external community resources that lead to social capital adult behavior in many communities might be inadequate, the necessary humanistic component of tolerance to embrace those less financially fortunate and/or of color is a critical factor to narrow the achievement gap. Tolerance and understanding others' differences unveils complex challenges that school leaders face in order to instill educational equity. Individual value systems often lead to complicated misunderstandings, but when undesirable beliefs towards other people manifest as bias or prejudicial behavior, the outcome might leave an indelible impact on children in a school setting (Delpit, 2006).

The lack of tolerance and misperceptions of what all students need to learn is foundational for change in schools (Wagner, 2008). Kegan and Wagner (2006) claimed that the dilemma of the resistance to change to improve is a human quality, but in school settings improvement appears to be more complex, resulting in the slow progression of

school reform. Controversy over the best way to improve American education persists amongst politicians, educational researchers, practitioners and parents for a multitude of reasons.

Determining what school leaders need to prioritize to improve education remains unclear. Price (2008) contended that school leaders misinterpret how to integrate a myriad of peoples' range of needs in a harmonized way to improve learning for all students. Marzano, McNulty and Waters (2005) analyzed principal leadership responsibilities, then organized twenty one categories of principal behaviors deemed necessary to improve student learning. While the behaviors can be understood on a surface level, ways to implement these behaviors require deeper understanding by principals.

Since Marzano, McNulty, and Waters (2005) released their results, the issue of trust advanced to the forefront for principals to promote to improve their schools (Bryk & Schneider, 2005; Fink & Hargreaves, 2006; Kegan & Wagner, 2006). Goleman (2006) suggested that social intelligence develops trust, which implied that principals with underdeveloped social intelligence might use ineffective approaches to build trust. If establishing trustworthy relationships empowers leaders, then the degree to which the principal exhibits social intelligence can lead to important links to leadership.

There is reason to believe that principals not only lack awareness of the impact of their social intelligence on their leadership effectiveness, but also Fink and Hargreaves (2006) indicated that principals might misunderstand the connection between school improvement and trust. Therefore, further research is necessary to determine what principals know about social intelligence, and how their own social intelligence relates to

their leadership effectiveness. In addition, more research is needed to study the ways principals utilize their social intelligence to lead change and improvement in their schools.

Goleman (2006) identified potential consequences in any organization when leaders display underdeveloped social intelligences. In particular, Kohlrieser (as cited in Goleman, 2006) maintained that "feeling secure lets a person focus better on the work at hand, achieve goals and see obstacles as challenges, not threats. Those who are anxious, in contrast, readily become preoccupied with the specter of failure" (p. 277).

In the context of schools, principals with underdeveloped social intelligence potentially risk missed opportunities to influence teachers to continually improve their teaching. Moreover, principals with underdeveloped social intelligence (as defined by Goleman, 2006) might behave in a way that negatively influences their school cultures towards unfavorable stagnating climates with unaligned classroom practices (Kegan & Wagner, 2006; Wagner, 2008).

Goleman (2006) suggested that social intelligence links to leadership. There is reason to believe that principals lack awareness of the connection between social intelligence and leadership. Depending on the experiences, backgrounds, beliefs, exposure to recent research and school district expectations, many principals practice ineffective leadership to improve their schools (Frank & Miles, 2008).

Also, some principals misunderstand that command and control leadership approaches do not promote change for improvement (Ravitch, 2010; Wagner, 2008). Evans (1996) suggested that principals who rely on school procedure and district policy

mandates to lead their teachers misinterpret that typically mandates only lend rationale, not sustainable change to improve.

To change and improve schools, principals require additional leadership skills such as social intelligence providing a rationale for this study. Throughout the study, I examined what principals know about social intelligence, and how they applied social intelligence to leadership. I hypothesized that principals who utilized social intelligence might be better equipped to help teachers improve their instruction to ultimately meet the needs of all students. In essence, this study intended to offer research based field recommendations to improve American education.

Statement of the Purpose

The study sought to better understand how the social intelligence of principals linked to the continuous improvement of teachers. In addition, the study intended to determine if there are similarities and differences between teacher and principal perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve.

Research Questions

Three research questions framed the study to examine the connection between principals' social intelligence and teachers' improvement. Furthermore, these questions guided the study to analyze the similarities and differences between teacher and principal perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve.

1. What are the ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?

2. How do teachers view their principals' social intelligences as a factor in promoting or hindering their continuous improvement?
3. What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

Study Design

The mixed method approach of quantitative and qualitative measures framed the study. The mixed method approach intended to address the research problem by using a variety of research methods (Denscombe, 2012). The study unfolded in four sequential phases: Phase One used a quantitative survey; Phase Two and Three utilized qualitative questionnaires and interviews; Phase Four mixed quantitative and qualitative measures together in individual schools. The qualitative data dominated the quantitative survey data throughout the study.

The quantitative survey attempted to produce an exploratory subject sample with a predicted confidence interval of 95% by using a non-probability purposive subject sampling. In other words, a random sampling of 127 principals and 331 teachers across Massachusetts were contacted using SurveyMonkey ("SurveyMonkey," 2013), an electronic survey tool for this study. The survey intended to spark interest in the topic and to glean descriptive data from interested participants. In addition, the Likert type attitude inventory measured the participants' interest and awareness levels of principals' social intelligence linked to teachers' continuous improvement and guided interested participants to Phase Two of the questionnaire.

After answering Phase Two open-ended questions through SurveyMonkey (2013), participants then volunteered for phone or face-to-face interviews for Phase Three. The mixed method approach structured the research process so data from Phase Two informed the question development for the Phase Three interviews.

Phase Four, the final phase, consisted of volunteer principals who wished to use their own self-analysis of social intelligence to then survey their teachers to determine a possible perception gap. The mixed method approach laid the foundation for developing measurement tools specific to each principal's reported social intelligence.

The next section explains the research questions in the context of the data collection and analysis process. Because the collection and analysis for Research Questions One and Two were the same, they are explained together. The explanation for Research Question Three is treated separately.

Research Questions One and Two

1. What are the ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?
2. How do teachers view their principals' social intelligences as a factor in promoting or hindering their continuous improvement?

Data Collection. I used SurveyMonkey (2013) to outline the survey design and data collection for both Phase One and Two beginning with the solicitation of Massachusetts' principals and teachers via email to participate in Phase One of the study. In order to personalize the interviews for Phase Three, the participants' responses from Phase One and Two framed the questions.

Data Analysis. After the analysis of the Phase One quantitative descriptive data, tables presented the percentages and counts of participants' responses with relevant cross bar graphs. Next, I used statistical tests to analyze the data to look for statistical significance amongst variables of interest from the survey data. Through careful analysis of the Phase Two written text and Phase Three interview data, I categorized trends and themes with codes that corresponded to Research Questions One and Two

Research Question Three

3. What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

Data Collection. Participating principals in the first three Phases of the study volunteered to survey their own teachers. I used SurveyMonkey (2013) to outline the anonymous individual school surveys design in collaboration with each principal. School emails provided by the principals were used to solicit participation. The survey design structured the questions to allow quantitative answers only with an opportunity to write additional information at the end of the survey. To insure anonymity, no teacher interviews occurred. Each principal's data from the first three phases were mixed with each school's teacher data to examine Research Question Three.

Data Analysis. After the analysis of the teacher data, tables presented the participants' responses in percentages and counts with relevant cross bar graphs. Through careful analysis of the written responses, I categorized trends and themes with codes specific to each principal. By comparing the principal data to the teacher data,

perceptual similarities and differences surfaced that corresponded to Research Question Three.

Delimitations and Potential Biases of Study

Delimitations

By design, the solicited participants encompassed Massachusetts' public school educators (K-12), but excluded private and parochial schools. Random contact via email solicited all principals and teachers, except for the pre-determined cohort members and colleagues who committed to participate prior to the onset of the study. Because of time constraints and resources, the interviews lasted no longer than ten to fifteen minutes.

Potential Bias

Since I am a principal and a former teacher, I developed preconceived notions towards principals' and teachers' behaviors. These prior experiences presented a possible bias, which might have jeopardized the dependability of the study. I also expected some bias with the four Lesley volunteers because of our relationship and their involvement in the study's initial design. In addition, Phase Four of the study required teachers and principals in the same school to participate; hence, I also expected possible bias in this scenario.

Definitions of Terms

Social Intelligence

Social intelligence is organized in two categories: social awareness and social facility (as defined by Goleman, 2006). Social awareness is what we sense about others and social facility is what we do with that awareness. In the context of the

principal/teacher relationship, social awareness and facility are the behaviors exhibited by the principal towards teachers. More specifically,

> the ability to sense nonverbal emotional signals, listening with full receptivity, understanding another persons thoughts, feelings and intentions, and knowing how the social world works; and interacting smoothly at the nonverbal level, presenting ourselves effectively, shaping the outcome of social interactions and caring about others' needs and acting accordingly (p. 84).

Teacher Continuous Improvement

Continuous improvement is defined as a cyclical process with recurring stages that often overlap with specific measurement indicators utilized (Duffy, 2003; Kegan & Wagner, 2006). In the context of American classrooms, continuous improvement is viewed as teachers striving to improve their instruction based on the learning needs of their students; with indicators of success stemming from student achievement results, such as assessments and classroom work samples. The key concept explored in this study was continuous improvement, which means teachers who prioritize instructional improvement above anything else, rather than sporadic, disconnected changes.

School Culture

There is no single, absolute definition of school culture that applies to all situations (Drago-Severson, 2012), but Fisher, Frey, and Pumpian (2012) interlace academic curriculum and school culture together as the two priority elements of school effectiveness that must inform the school's vision. The authors suggest that "culture develops and grows up through an accumulation of actions, traditions, symbols, ceremonies and rituals that are closely aligned with that vision" (p. 6).

Perceptions of Principals and Teachers

The study compared teachers' perceptions of their principals' social intelligence to the ways principals self-reported. The similarities and differences between teachers' and principals' perceptions linked to elements of social intelligence needed for principals to lead teachers to continuously improve.

Significance of the Study

The study sought to provide information to assist principals to better understand how their social intelligence capacity impacts teachers' continuous improvement. A second layer of significance intended to help teachers, policy makers and higher education faculty to better understand how principals' social intelligence links to teachers' improvement. More specifically, the study aimed to delineate what behaviors in the context of social intelligence teachers need from their principals to continuously improve. The study also examined the perception gap between how teachers view their principals' social intelligence compared to how principals' self-report.

The research data provided principals with key elements of social intelligence to create a continuous improvement school culture grounded in trust that positively impacts student learning. The study also suggested that superintendents and institutions of higher education prioritize professional development to include social intelligence for principals to better understand the link to leadership. Moreover, social intelligence weaved into professional development for principals, teachers, and superintendents surfaced in the study as a viable possibility significant for education reform and improvement.

Chapter Outline

The dissertation consisted of five chapters, which were organized in the following manner:

Chapter One

A personal interest statement introduced the dissertation which connected educational reform issues in the context of teachers' continuous improvement and principals' leadership. After the introduction, the chapter delineated the problem that provided a rationale for the purpose of the study. The study design was described, and the research questions explained in the context of the process of data collection and analysis. Delimitations, potential bias, and significance of the study followed.

Chapter Two

The dissertation required a literature review that contributed to the conceptual framework that guided the study**.** The literature review examined six areas of relevant literature: (a) history of social intelligence, (b) development of social intelligence for leadership, (c) influence of continuous improvement on school culture, (d) impact of the principal on teacher mindsets, (e) role of the principal in cultivating teacher trust, and (f) leadership qualities that influence school culture.

Chapter Three

A personal philosophical worldview and social cultural perspective were articulated, followed by an overview of the research design. The overview included rationale, an explanation of the participant selection process, and a description of the mixed methods approach. The research questions precluded explanations of the data collection and data analysis procedures. Limitations, delimitations and the trustworthiness of the study concluded the chapter.

Chapter Four

The analysis of data collected was organized by the research questions. Each research question was examined in the different Phases of the study. Phases One, Two and Three explored Research Questions One and Two; Phase Four examined Research Question Three exclusively. Tables, graphs and written text presented the data that determined the key findings brought forth by the study.

Chapter Five

The chapter began with an introduction that restated the context for the study, followed by a summary of the study, and a discussion of conclusions stemming from data related to key findings. Recommendations for principals, superintendents, teachers and institutions of higher education followed. Future research about this topic and final reflections concluded the chapter.

CHAPTER TWO: REVIEW OF LITERATURE

Introduction

This study sought to better understand how the social intelligence of principals linked to the continuous improvement of teachers. In addition, the study intended to disclose principals' and teachers' perceptions of the social intelligence needed for principals to lead teachers to continuously improve.

My work as both a teacher and principal provided the initial impetus for this study. After a multitude of interactions with teachers and principals, it became apparent that many principals did not recognize how their social intelligence linked to teachers' continuous improvement. These observations led me to examine relevant literature to frame the study.

What follows is a review of literature that is intended to provide a research rationale for the study. Each of the six sections includes a synthesis of relevant literature and possible research implications, and the chapter is organized according to the following topics: (a) history of social intelligence, (b) development of social intelligence for leadership, (c) influence of continuous improvement on school culture, (d) impact of the principal on teacher mindsets, (e) role of the principal in cultivating teacher trust, and (f) leadership qualities that influence school culture. The chapter concludes with a summary of the major ideas proffered through the literature review.

History of Social Intelligence

The literature review begins with the history of social intelligence accompanied by opposing views throughout the psychology field. Also, specific biological brain components connected to social intelligence are discussed.

The first accepted historical commentary of social intelligence surfaced in the 1920 *Harper's Monthly Magazine*, authored by Columbia University psychologist, Edward Thorndike. By juxtaposing real life situations with known intelligence studies, Thorndike recognized that "interpersonal effectiveness was of vital importance for success in many fields, particularly leadership" (as cited in Goleman, 2006, p. 83). Throughout the psychology field, Thorndike's original work spearheaded enthusiasm for further research into social intelligence well into the 1930's. However, "beyond those general characterizations of social intelligence, neither Thorndike nor anyone else had much intelligent to say" (Livergood, 2013, p. 1). Unfortunately, research efforts were compromised due to the lack of instruments that actually measured social intelligence (Mathews, Moshe, & Roberts, 2003).

In 1973, Walker and Foley (as cited in Mathews et al., 2003) suggested that because of the inconsistencies with social intelligence measurement and analysis, the concept was perceived as an unsubstantiated fad. The measurement complications surrounding social intelligence provoked further acceptance issues in the field, particularly when IQ testing materialized in 1900 (Mathews et al., 2003). Intelligence testing originated in Paris, France with Arthur Binet's success in delivering a simple method to measure intelligence, now known worldwide as the IQ test.

Unlike the simplicity of the IQ test, proponents of social intelligence had not produced an understandable measurement tool (Mathews et al., 2003). Brown (1992) highlighted that Binet's work provided the foundation for most intelligence testing, thus, acceptable frameworks for intelligence testing emerged. In 1908, Henry Goddard (as cited in Brown, 1992) used Binet's simple intelligence tests on large populations. Hence,

by 1925, the United States accepted intelligence testing as a legitimate tool to reorganize public schools around "the principles of mental measurement" (Brown, 1992, p. 4).

With the onset of David Wechsler's publication of the Wechsler Bellevue Intelligence Scale in 1939, further research of social intelligence in the psychology field diminished (Mathews et al., 2003). Coalson and Weiss (2002) summarized that Wechsler "believed in a unitary construct of intelligence that could best be measured by assessing an individual's performance on a wide array of tests" (p. 1). Wechsler utilized specific scales to measure intelligence, unlike the proponents of social intelligence. Even though researchers challenged Weschler's theoretical foundation (Coalson & Weiss, 2002), by the 1950's he gained recognition in the psychology field. Weschler's remark that social intelligence is just "general intelligence applied to social situations" (Goleman, 2006, p. 83) contributed to the further decline of social intelligence research.

In the second half of the 20th century, social intelligence resurfaced with the neuroscience advancement. Blakemore and Frith (2005) defined neuroscience as "the study of the structure and function of the brain, mind, and behavior" (p. 203). Plucker (2003) redefined neuroscience as emotional, moral, social, multiple intelligences as interconnected (p. 1).

The concept of multiple intelligence achieved notoriety with the work of Howard Gardner. In the early 1970's, Howard Gardner (2008a) constructed the Multiple Intelligence (MI) theory on the premise that "MI theory is an extended argument against this all-purpose view of intellect" (p. 69). Moreover, Gardner (2000) intended for the Multiple Intelligence theory to correspond with current brain research rather than specific testing instruments.

The neuroscience researchers agreed that the brain is a complex organism with multiple components yet to be researched. For the purpose of this study, the biological components, the amygdala and the mirror neurons that connect to the social pieces of the brain, are explained. Recent brain research revealed distinct roles that emotions governed by the amygdala play with memory, logic and reason (Jensen, 2000). These emotions connected to prior experiences that influence human behavior (LeDoux, 2008). Restak (2008) pointed out that "our thoughts and behavior are powerfully influenced by people" (p. 7), which is a result of the brain's mirror neurons located in the prefrontal cortex. Goleman (2006) weaved the research together by explaining:

> Neuroscience has discovered that our brain's very design makes it sociable, inexorably drawn into an intimate brain-to brain linkup whenever we engage with another person. That neural bridge lets us affect the brain-and so the body-of everyone we interact with, just as they do us. Even our most routine encounters act as regulators in the brain, priming our emotions, some desirable, others not. The more strongly connected we are with someone emotionally, the greater the mutual force (p. 4).

Contemporary research highlighted disagreement amongst neuroscience researchers who debated the depth of the role of mirror neurons (Marsh, 2012). Neuroscientist Ramachandran (as cited in Marsh, 2012) defended his stance that "mirror neurons will do for psychology what DNA did for biology and open up a whole new field of investigation" (p. 1), but insisted that the extent of the role mirror neurons play in human behavior is misunderstood across the psychology field and demands further research. However, Ramachandran (2011) concurred with Restak (2008) and Goleman (2006) that the mirror neurons connect to the interactions between people. Ramachandran (2011) specified empathy and language.

Combined with biological brain research, Gardner's (2008a) extensive work and

publications on multiple intelligences provided an acceptable perspective for the psychology field to better accept social intelligence (Livergood, 2013). However, Fischer and Immordino-Yang (2008) emphasized that scientific proof of neuroscience marginally exists because much of the research has yet to be conducted.

Plucker (2003) projected that the intelligence field will progress rapidly mirroring the fast pace of the study of intelligence over the last thirty years. For the purpose of this study, I highlighted that Goleman's (2006) work theoretically corresponded with Gardner's (2008a) Multiple Intelligence (MI) theory as intelligences characterized with unique qualities that may initially appear independent of one another, but over time may interconnect.

Goleman (2006) originally defined social intelligence within the construct of emotional intelligence, unlike other theorists in the social intelligence field. Over time he recognized that "lumping social intelligence within the emotional sort stunts fresh thinking about the human aptitude for relationship, ignoring what transpires as we interact" (p. 83). Goleman's (2006) definition of social intelligence framed this study to examine the link between principals' social intelligence and the continuous improvement of teachers. In summary, "the ingredients of social intelligence are. . . social awareness, what we sense about others - social facility, what we then do with that awareness" (p. 84).

However, the theory of social intelligence continues to face scrutiny and criticism. For example, Mathews (et al., 2003) suggested that the research attempts to determine the status of social intelligence remains mixed, but offered unrelated possibilities to consider:

> social intelligence is . . . separate from traditional academic intelligence. . . and is nothing but a proxy for general intelligence. . . . Social intelligence is closely

> linked to personality making it a misnomer to call it a form of intelligence. Since implicit theories strongly indicate social intelligence to be a form of cognitive ability then it must be similarly be included in explicit theories (p. 557).

To better understand social intelligence theory, Mathews (et al., 2003) emphasized the need for more research and analysis. Livergood (2013) answered the call for more research and listed four major qualities capturing social intelligence:

> (1) seeing through the current social myths and diversions, (2) understanding the necessity of life long self-education, (3) recognizing the necessity of social action, including discerning what the social situation requires and creating a program to realize social reform, (4) developing genuine feelings of compassion and regard for one's fellow human beings (p. 1).

The previous authors' works exemplified the progress in the neuroscience field over the past decade. Moreover, after twenty-five years of examining his own Multiple Intelligence theory, Gardner (2008b) hinted at the futility surrounding the search for "pure" intelligence.

Even though the social intelligence debate among the experts in the psychology field has persisted, the previous literature propels us to more fully apply components of social intelligence to leadership. The ensuing section explores the literature on ways to develop social intelligence to expand leadership capabilities.

Development of Social Intelligence for Leadership

The previous section examined how the biology of the brain connected to human behavior. Debate has continued within the psychology field on the details of how the brain components work together; but over the last ten years, researchers agreed on the validity of social intelligence (LeDoux, 2008). This segment explores the literature on how to develop social intelligence to improve leadership effectiveness. The section is

organized in the following manner: (a) Boyatzis and Goleman research, (b) generative leadership, and (c) ways to develop social intelligence.

Boyatzis and Goleman Research

In the past decade Boyatzis and Goleman (2008) identified a substantial performance gap between "socially intelligent and socially unintelligent leaders" (p. 2) with the development and implementation of their Emotional and Social Competency Inventory. The inventory data revealed seven qualities with related behaviors exhibited by successful leaders worldwide. I used the following qualities (Boyatzis & Goleman, 2008) in the data collection phase of this study:

> Empathy: Do you understand what motivates other people even those from different backgrounds? Are you sensitive to others' needs? Attunement: Do you listen attentively and think about how others feel? Are you attuned to others' moods? Organizational Awareness: Do you appreciate the culture and values of the group or organization? Do you understand social networks and know their unspoken norms? Influence: Do you persuade others by engaging them in discussion and appealing to their self interests? Do you get support from key people? Developing others: Do you coach and mentor others with compassion and personally invest time and energy in mentoring? Do you provide feedback that people find helpful to their professional development? Inspiration: Do you articulate a compelling vision, build group pride and foster a positive emotional tone? Do you lead by bringing out the best in people? Teamwork: Do you solicit input from everyone on the team? Do you support all team members and encourage cooperation (pp. 2-3)?

Boyatzis and Goleman (2008) also identified "word choice, body language and voice tone" (p. 3) as elements of social intelligence. Empathy emerged as the predominate effective leadership behavior, specifically understanding others' moods, which indicates an emotional connection between leaders and stakeholders (Goleman, 2011b). The author emphasized that "it is the most powerful person who is the emotional sender, setting the emotional state for the rest of the group" (p. 42). In addition, staff in workplace settings typically shift their methods of interaction to appease superiors

(Bennis, Goleman, & O'Toole, 2008) which requires leaders to understand:

> The higher leaders rise, the less honest feedback they get from followers about their leadership. Direct reports understandably hesitate to enumerate the boss's leadership failings. And so top leaders easily lose touch with the ways others see them and may remain poor listeners, abrasive, tuned out or otherwise clueless about their own limitations (p. 36).

In essence, leadership requires an authentic awareness of others' needs from empathetic perspectives (Carroll, 2007). Boyatzis and Goleman (2008) hypothesized that "leading effectively is , in other words, less about mastering situations -- or even mastering social skill sets -- than about developing a genuine interest in and talent for fostering positive feelings in the people whose cooperation and support you need" (pp. 1-2).

Goleman (2011b) categorized empathy in three ways: (1) cognitive, (2) emotional, (3) empathetic concern (p. 48). After defining each category, the author applied his three kinds of empathy to the workplace:

> One is cognitive empathy: I know how you see things; I can take your perspective. Managers high in this kind of empathy are able to get better than expected performance from employees, because they can put things in terms that people understand-and that motivates them. . . . A second kind is emotional empathy: I feel with you. . . . People who excel in emotional empathy make good counselors, teachers, client managers and group leaders because of this ability to sense in the moment how others are reacting. And the third kind is empathetic concern: I sense you need some help, and I am ready to give it. Those with empathetic concern are the good citizens in a group, organization or community, who voluntarily help as needed (Goleman, 2011b).

The preceding authors emphasized that leaders who exhibit empathy yield more positive outcomes than leaders who lack empathy.

As previously mentioned, the discovery of mirror neurons shed new light on the brain's social functions allowing neuroscientists to better understand the interface of

empathy with social intelligence (D. Barth, 2013; Goleman, 2011b; Ramachandran, 2011). For the purpose of this study, leadership styles linked to neuroscience, social intelligence, and empathy were explored, and the concept of generative leadership emerged. The next section examines generative leadership, and its potential to guide principals to lead their teachers to continuously improve.

Generative Leadership

Leadership has continued to be examined from many perspectives, but the neurosciences now have risen to the forefront to determine necessary leadership for the needs of 21st century schools (Darling-Hammond, 2010). Generative leadership (Klimek, Ritzenhein, & Sullivan, 2008) prioritizes the use of a group's collective intelligence to generate solutions. Three key elements intertwined together define generative leadership: (a) generativity, (b) living systems principles, and (c) brain/mind science (Klimek et al., 2008). The ensuing paragraphs explain generativity, living systems principles, and brain science related to 21st century school leadership.

Cooperrider, Whitney & Stavros (as cited in Klimek et al., 2008) stated that "generative learning is the type of organizational learning that emphasizes systemic thinking, a willingness to question the supposed limits of an issue, to think creatively outside the assumed constraints and continuous experimentation" (p. 66). Specifically, generative leaders have been known to

> challenge common sense assumptions, raise fundamental questions that foster reconsideration of what is taken for granted and think creatively outside the supposed limits of a problem to identify new alternatives for action and new prospects for the future" (Klimek et al., 2008, p. 74).

Besides generativity, generative leaders understand the complexity of

organizations (Klimek et al., 2008). Both Peter Senge and Meg Wheatley (as cited in Klimek et al., 2008) argued that understanding systems as continually changing and evolving must become an integral part of leadership. Both authors contrasted a 21st century systems approach to a 20th century factory model. In other words linear change, with predetermined conditions, no longer works for system improvement. Michael Fullan (2013) concurred that 21st century leadership requires an ability to implement whole system improvement that supports constant change.

Generative leaders also understand the brain. Klimek et al. (2008) summarized that learning stems from active experiences, probing questions to stimulate deeper thinking, reflection, and conversation. The authors stated that generative leaders apply brain research concepts to instill a continual culture of improvement. More research is needed to extrapolate the significance of incorporating the natural chemistry of the brain to leadership. Goleman (2011a) spearheaded further examination of the social elements of the brain and leadership lending credence to a third element of generative leadership (Klimek et al., 2008).

In summary, the three elements of generative leadership weaved together describe leaders who can prioritize the system instead of individual parts, consistently question established assumptions regarding prominent issues, find ways to tap into people's potential creativity, and promote continuous risk taking to learn. The "culture surrounding a generative leader is a co-creative one, in which every individual is confident that he or she is valued, empowered, and authorized to contribute creatively to shaping the system and its future" (Klimek et al., 2008, p. 49).

Klimek et al. (2008) listed six hallmarks to assist leaders to grow towards a

generative leadership platform: (1) deepen personal knowledge, (2) blend living systems theory with practice, (3) promote professional conversations, (4) engage in personal reflection, (5) lead toward a desired culture, and (6) rely on creativity and innovation (pp. 95-97). The authors' six hallmarks created an understandable pathway towards acquiring generative leadership; however, by developing social intelligence, principals might cultivate generativity. The following section explores ways to develop specific elements of social intelligence: body language, word choice and voice tone.

Ways to Develop Social Intelligence

Current literature indicates that elements of social intelligence might be developed with heightened awareness and practice. With repeated practice, the "brain continually reshapes itself accordingly" (Goleman, 2011b, p. 54) for new skills to grow. More specifically, Goleman (2011b) maintained that commitment with a persistent practical approach to learning will increase the success of acquiring a new behavior. However, cultivating social intelligence has been biologically challenging to some people (Goldsmith, 2010). Montgomery (as cited in Goldsmith, 2010) proposed that people with greater mirror neuron activity might be more socially intelligent than those with less mirror neuron activity. Regardless of Montgomery's findings (as cited in Goldsmith, 2010), neuroscientists have agreed that due to the brain's neuroplasticity, humans might learn at all ages (Goleman, 2011a; Ramachandran, 2011).

The following paragraphs discuss body language, word choice, and voice tone as ways to increase social intelligence capacity. For the data collection phase of this study, I asked principals and teachers to consider the effects of body language, word choice and voice tone in the context of principals' social intelligence to support the continuous

improvement of teachers.

As referenced earlier, the brain's mirror neurons play an active role in reflecting observed behaviors by other people back to the observer (Ramachandran, 2011). The observer automatically mimics the behavior or at minimum, sensed a desire to mirror the behavior (Goleman, 2006). Simply put, "when you are smiling, the whole world smiles with you" (p. 41). The neuroscientists attached the research to what the general population has understood for centuries: Facial expressions have reflected emotions, and these emotions have been translated to others (Goleman, 2011b; LeDoux, 2008; Ramachandran, 2011; Restak, 2008). In addition, body language sends strong nonverbal signals to the observer, such as trust (Bowden, 2010; Goleman, 2011a) through the mirror neurons of the brain.

Similar to Goleman (2006), Bowden (2010) insisted that "the heart of communication is body language" (p. 18) but further added that body language builds trust through strategic use of hands, facial expressions, and stance. Ninety-three % of communication is dependent on nonverbal messages, not dialogue (Bowden, 2010) validating the need for school leaders to develop an awareness of the impact of body language.

To increase body language effectiveness, Bowden (2010) coined the phrase "TruthPlane" (p. 53) to explain how to learn body language techniques that build trust with people. The TruthPlane ranges across the body's midsection and "when the hands gesture within the TruthPlane, an energized, calm, confident and balanced effect is felt by both the communicator and the receiver" (p. 53).

According to Bowden (2010), body language in the TruthPlane range impacts

voice tone. In brief, a calm communicator exudes a feeling of confidence and trust, regardless of the words chosen through voice tone. Both Bowden (2010) and Goleman (2006) implied that elements of social intelligence, such as body language and voice tone, might be cultivated to enhance leadership qualities linking social intelligence to generative leadership.

Boyatzis and Goleman (2008) also identified word choice as an element of social intelligence linked to leadership. Sattes and Walsh (2010) placed word choice into the context of quality questioning. After 20 years of field research with principals and teachers, the authors blended word choice and body language together. Their research suggested that authentic listening shown through body language sets the groundwork for effective questioning. Marilee Adams (as cited in Sattes & Walsh, 2010) identified opposing mindsets, "the judger and the learner," (p. 22) as integral pieces of the outcome of questioning:

> Those with a learner mindset are interested in possibilities and hope; they are flexible, they listen objectively; they search for unusual and creative answers. The judger mind-set, on the other hand, tends to ask with his or her own answer in mind can be reactive, blaming, defensive, and even attacking. Judging attitudes tend to cause people to be defensive, wary and less open (p. 22).

To reach a high level of quality questioning, four habits of mind, " authenticity, curiosity, openness and respect" (Sattes & Walsh, 2010, p. 23) are necessary to develop the desired learner mind set.

Despite the degree to which principals employed elements of social intelligence to lead teachers to continuously improve, Barth (2001), Marzano, McNulty, and Waters (2005), and many others have agreed that principals' behavior impacts continuous improvement school cultures. The ensuing section introduces continuous improvement

school cultures, and explores the history of continuous improvement in the business sector and its influence on education.

Influence of Continuous Improvement on School Culture

Over time researchers examined school culture from a myriad of perspectives. As continuous improvement gained merit in the business sector, the importance of continuous improvement school cultures emerged. This segment discusses school culture and continuous improvement followed by the history of continuous improvement.

School Culture and Continuous Improvement

Typically, cultures connoted people's beliefs which embedded behaviors and norms that evolved over time into a recognizable culture. Moreover, cultures grew through shared actions, traditions, symbols and rituals (Fisher et al., 2012). On the other hand, a continuous improvement school climate reflects environmental factors that might influence behavior to change a school culture. Therefore, "leadership behavior that prioritizes and cultivates growth enhancing climates providing the possibility of altering the culture of a school over time" (Drago-Severson, 2012, p. 6).

With specific measurement indicators utilized, continuous improvement can be described as a cyclical process with recurring stages that often overlap (Duffy, 2003; Kegan & Wagner, 2006). Continuous improvement interfaced with systematic change from the perspective that improvement entails change (Collins, 2001; Kotter, 1996; Reeves, 2009); however, change doesn't always mean improvement (Reeves, 2009).

Dufour and Marzano (2011) partnered together to examine Dufour's (2008) theories on teacher improvement using field research. The authors agreed with many others that traditional school structure and culture typically have not been conducive to

organizational change for improvement. Teachers worked in isolation of each other as masters of their own classrooms (Louis, as cited in DuFour & Marzano, 2011), predictably resulting in unaligned learning experiences for students (Fisher et al., 2012).

Researchers and theorists continued to examine the management role and leadership capacity of principals in the context of school reform. It is clear the behavior of school principals impacted school cultures (Barth, 2001), but principals' social intelligence might be the solution to create and sustain a culture of continuous improvement. In addition, the history of continuous improvement in the business sector offered insight to school leaders to find leadership strategies that pertain to change and improvement (Kegan & Wagner, 2006). The next segment examines the history of continuous improvement in the business sector and relates it to education.

History of Continuous Improvement

A historical review by Bell and Orzen (2010) of continuous improvement in America begins at the onset of the Industrial Revolution initiated by Frederick Taylor, Henry Ford and Dr. Walter Shewhart. In 1911, Frederick Taylor, who discovered ways to reduce production time, originally developed the desire for efficiency in task performance, and Henry Ford followed, in 1927, by inventing a repetitive assembly line structure to produce the Model T. By adding statistical analysis in 1924 to the product efficiency studies, Dr. Walter Shewhart of Bell Telephone Laboratories connected product quality to process variations.

With the American economy shifting to include industry, society called for schools to prepare students for industrial life (Hammond, 2010). Schools organized to mirror an assembly line that translated to drill, repetition and memorization of

predetermined facts in a sequential order (Frank & Miles, 2008). Performance was judged with a letter grade, and high performers aspired for the external reward of an "A" (Hunter Quartz, Lipton, Oakes, & Ryan, 2000). Schools implemented the concept of continuous improvement based on the principles developed by Ford and Taylor, even though workers reported that the work was meaningless and lacked intellectual challenge (Bell & Orzen, 2010).

It was the importance of learning, which held meaning and challenge, rather than memorization of information that school leaders failed to recognize as a cardinal component of education (Darling-Hammond, 2010). As the 20th century progressed into the 1950s, American education continued to imitate the linear, assembly line style of learning without accessing more recent continuous improvement theorists' ideas such as William Edwards Deming (Lipton et al., 2000). An acceptable definition of continuous improvement from the business sector evolved into "an ongoing effort to improve products, services, or processes. These efforts seek 'incremental' improvement over time or 'breakthrough' improvement all at once" ("Customer Management IQ," 2012). However, in schools educators diverted energies to maintain the status quo rather than to align with successful practices that formulated in the business sector (Frank & Miles, 2008), such as the improvement system that Deming developed in Japan.

In the 1970s, Deming brought a new face to change in the workplace with emphasis on improvement with his fourteen points for management ("Lean Expertise.Com are you in?," December 2010). He was best known for his work in Japan teaching total quality management, or better known as TQM. In summary, the fourteen points included: demonstrate purpose through a philosophy to lead change to

improve by focusing on quality first; training must be job embedded with choice and education for all employees, and supervision and leadership must be cultivated with a priority focused on quality improvement; fear must be eliminated so all employees strive for the betterment of the organization, and inter-department barriers must be abolished by discontinuing such practices that minimize individual pride, quotas and merit pay systems; reprioritize by instituting a process that focuses on teamwork, so all employees participate in the improvement efforts ("Lean expertise.com Are you In?," December 2010).

Unlike the improvement theorists of the Industrial Revolution, Deming brought the human quality of pride into the concept of continuous improvement (Mora, 2012). With the understanding of the importance of how pride in one's work might lead to gratification and satisfaction, various strategies emerged throughout the business sector to create climates where employees readily contributed ideas to improve their respective products (Bennis et al., 2008).

To further motivate American companies to shift towards quality focused production, Secretary of Commerce Malcolm Baldrige ("Baldrige Performance Excellence Program," 2013) led the charge in the 1980's to "enhance the competiveness of U. S businesses. [His efforts evolved into the Malcolm Baldrige National Quality Improvement Act of 1987,] to identify and recognize role-model businesses, to establish criteria for evaluating improvement efforts and to disseminate and share best practices" (p.1).

In 1999, the Baldrige Performance Excellence Program expanded into the education sector to provide criteria for excellence to improve American Schools. The

areas included were "leadership, strategic planning, customer focus, measurement, analysis and knowledge, workforce focus, operations focus, and results" (p.1).

However, many American schools maintained the Industrial Age school based on "standardized timetables governing each part of the day . . . with fixed rigid curricula delivered by teachers whose job was . . . to maintain control (Senge, as cited in Fullan, 2010, p. 10). Even after John Dewey's 1916 introduction to a different framework for schools that centered on children, the American school pendulum failed to move beyond the factory style organization. Dewey promoted experiential learning stemming from personal interest explored in social settings known as "progressive education" (Dewey, 1938). Dewey (as cited in Dufour et al., 2008) recognized precociously that the National Educational Association's call for educators "to recognize differences among children as to aptitudes, interests, economic resources, and prospective careers" (p. 33) was not a framework in which all students could learn. The NEA viewed students as measurable products, not individual children. The 20th century schools shifted to prepare students for industrial work, yet, the typical 21st century school "has remained stubbornly unchanging for the past 50 years" (Frank & Miles, 2008, p. 2).

School cultures resisted the efforts made to foster continuous improvement climates due to a myriad of misunderstood variables perceived to be out of the realm of educational influence (Frank & Miles, 2008). Some examples included demographics, students' home lives and economic shortfalls that became the ingredients for the "Potted Plant Theory of Leadership" (Reeves, 2006, p. 16). According to Reeves (2006), instead of seeking ways to address complex obstacles, educational leaders accepted complacency that fostered a paradigm of stagnated school cultures. Frank and Miles (2008) and

Reeves (2006) implied that the paradox in education stems from the ironic dilemma that many educators work in organizations of learning, however, failed to grasp the concept of continuous improvement.

Kegan and Wagner (2006) stated that adopting a continuous improvement philosophy similar to Japan's Kaizen strategy, offers promise to educators about connecting the importance of continually improving teaching practice to the changes students need in society because "The tidal wave of profound and rapid economic and social changes . . . are not well understood by many educators, parents and community members" (p. 3), and such changes must be understood in order to reform school cultures (Dufour & Marzano, 2011).

In Japan, Kaizen means improvement, and the Kaizen strategy called for never ending efforts for improvement (Koteinikov, 2012). The Japanese developed their Kaizen philosophy constructed on Deming's management points. The Kaizen philosophy framed improvement through the human mindset by focusing on process, not product and sets the Kaizen culture with " Not a day should go by without some kind of improvement happening somewhere in the company . . . everything can and should be improved" (Koteinikov, 2012, p. 1).

The desire for continuous improvement in the business sector called for further examination, as the 21st century needs manifested with the global economy expansion and a competitive business market (Zhao, 2009). Leadership changed from managing the factory type assembly line to leading organizations to success with new approaches (Collins, 2001; Heifetz, 1994; Kotter, 1996; Martin, 2009). The need for basic management skills evolved into strategic leadership capabilities as an unwavering

fundamental strategy for businesses to survive (Heifetz, 1994). Like the business sector, principals must shift to a strategic leadership mindset to "adapt from a management role to that of a primary teacher developer and architect of collaborative learning organizations" (Drago-Severson, 2012, p. 4) to create and sustain a continuous improvement culture.

Moreover, the concept of leadership has been broad, value-laden and saturated with the human perception and experience (Fink & Hargreaves, 2006; Grashow, Heifetz, & Linsky, 2009; Heifetz, 1994). Most people perceived leaders through a personal lens forming judgments from a narrow view on the qualities of an effective leader (Heifetz, 1994). For instance, in many schools principals have been faced with shifting their leadership style in reaction to the daily needs of parents, teachers, and students, which often require competing responses. To emphasize this point further, on any given day parents complained that the teacher had not assigned enough homework, while others complained in the same class there had been too much homework. The principal must respond effectively to both parents while simultaneously developing teachers who can differentiate homework with a clear purpose that is appropriate for all students (Vatterott, 2009).

Similar to leadership in the business sector, principals must discern ways to cultivate their own leadership skills that strategically meet the diverse needs of the stakeholders connected to their schools by "creating learning-oriented environments" (Drago-Severson, 2012, p. 9). Transforming organizations has been a more recent perspective on framing leadership (Fink & Hargreaves, 2006). Leaders recognized and acted upon the essential elements of change necessary to improve organizations

(Grashow et al., 2009; Kegan & Wagner, 2006; Kotter, 1996). Collins (2001) maintained that changing to improve to be good could promote adverse conditions to ever becoming great. Martin (2009) suggested that today's leaders must develop and apply integrative thinking skills to lead organizations to success. A continuous improvement culture might require leaders to tap into key principles of mindfulness in order to set conditions for their organizations to thrive in a healthy manner (Carroll, 2007).

The previous authors' leadership theories are notable examples that contributed to what leaders must consider to create and to sustain continuous improvement cultures. Leaders of companies who implemented contemporary strategies in the business sector metamorphosed from assembly line product improvement into conglomerate organizations layered with complexity in a fast changing world throughout the latter part of 20th century (Bennis et al., 2008; Collins, 2001; Lencioni, 2012). In addition, effective modern day leaders understood that to lead change to improve, they must expect unanticipated events and react appropriately (Duffy, 2003; Fullan, 2013).

Even though the concept of continuous improvement applied in business and education (Collins, 2001; Fink & Hargreaves, 2006; Hiebert & Stigler, 1999; Klimek et al., 2008), the details of what conditions are needed to foster and sustain improvement in education have been argued since the early 1900s (Hammond, 2010; Ravitch, 2010). Like the American business world, American education must employ 21st century elements to set conditions for continuous improvement.

The neurosciences provided opportunities for school leaders to re-examine leadership through the lens of social intelligence to create school cultures that prioritize school improvement (Goleman, 2011a; Klimek et al., 2008). In attempts to explore

school reform further, educational researchers accessed the neuroscience research from many perspectives. Dweck (2006) applied the research and determined that teacher mindsets link to student learning. Cultivating social intelligence in principals has become a tool for principals to shift teacher mindsets to continuously improve. The next section examines the impact of the principal on teacher mindsets, and the interplay between teacher beliefs and personalities.

The Impact of the Principal on Teacher Mindsets

The abundance of various teacher beliefs that influence school culture challenged principals' abilities to improve the instructional practices of teachers (Kegan & Wagner, 2006). These authors suggested that even though a teacher may comply with expectations,-authentic commitment to improve to benefit all students might be marginal due to an ingrained belief based on previous experiences. Thus, a teacher's mindset contributes to an unquantifiable piece of a child's learning experience (Dweck, 2010). The following segment provides a detailed examination of teacher mindsets and personalities to better understand the connection to teacher performance.

Teacher Mindsets

Dweck (2010) separated beliefs systems into two categories; "the fixed and growth mind sets" (p. 26). Basically, teachers who carry a fixed mindset believe that children can only learn to a certain level based on predetermined indicators such as IQ tests and backgrounds. On the contrary, teachers who internalize and exhibit a growth mindset believe that all children can learn and meet high expectations despite internal or external factors. More importantly, the growth mindset teachers tend to explore a broader

range of ideas and to attempt more strategies with persistence than the fixed mindset teachers (Dweck, 2010).

From the lens of school reform and continuous improvement efforts in schools, principals must probe into the belief systems of their teachers because "great teachers believe in the growth of intellect and talent, and they are fascinated with the process of learning" (Dweck, 2006, p. 194). Teachers who daily demonstrate that they believe all of their students can meet high expectations of learning through their classroom practice have proven to positively impact student learning (Boykin & Noguera, 2011).

Teachers who demonstrated the growth mindset through daily interaction should be applauded; however, there is corroborated evidence that social conditions beyond the classroom impact student learning significantly (Berliner, 2009). For example, students from disadvantaged homes may not be exposed to reading, conversation, and positive role models outside of school (Rothstein, October, 2004). With surmounting evidence that social class, race, family background and values have overwhelmed school reform efforts (Berliner, 2009), how do principals cultivate belief systems in teachers who promote and insist on high standards for all students, regardless of external hindering factors?

Similar to Dweck (2010), Bruce Torff (2011) maintained that educator beliefs served as a primary factor in creating and sustaining a continuous improvement culture. He referenced the cultural psychology discipline to frame the concept that "educators are socialized into the culture's beliefs about learning and teaching, which provided the basis for their idea of best practices" (pp. 21-22). Torff's (2011) conclusions demonstrated that principals must comprehend that teachers' beliefs impact school cultures.

Principals must recognize the potential tension between professional development efforts to improve instruction and teachers' beliefs embedded in how they view teaching and learning (Reeves, 2010). Based on recent research, it is clear that over time people become what they believe; therefore, it is also clear teachers' beliefs impact how they teach (Dweck, 2006).

Besides beliefs influencing teachers' practice, Elmore (2010) offered that teachers prior experiences as students also impact methods, decision making and philosophy. Without guidance, past teaching and learning experiences significantly influenced teachers' capabilities to teach so all students can learn. Often, teachers adopted the same teaching practices that were effective for them as students (Guskey, 2007). These experiences then shaped their views towards what classrooms resemble (Torff, 2011). Thus, teaching inconsistencies thrived and teachers' differences expanded over time inevitably impacting student learning (Hiebert & Stigler, 1999). In other words, the cycle of disparity repeated itself, possibly contributing to the achievement gap across American schools. Whether previous teaching experiences acted as the primary resource for defining teachers, or embedded beliefs shaped who teachers become, school leaders need to identify what can be taught through specific professional development to improve teacher quality.

Teacher Personalities

In addition to teacher beliefs, distinguishing aspects of teacher personalities have further challenged principals to guide teachers toward an exemplary level of instruction (R. Barth, 2001). Moreover, personality traits identified as infallible must be cultivated,

and dubious characteristics must be diminished in order to strengthen teachers' impact on student learning (Palmer, 1998).

The connection between teacher personality types and quality instruction called for further research. Kirtman (2014) linked personality types to school leadership that complemented the research connecting social intelligence to strong leadership. The combined research provides school leaders with a better understanding of the interplay between teachers' personalities and teaching style (Kirtman, 2014; Lencioni, 2012).

After extensive field research in urban schools with over 5,000 teachers, Haberman (2012) examined how teacher beliefs impact personality and ultimately teacher quality. He outlined twelve beliefs that compare "star" and "quitter/failure" teachers (p. 1). He described beliefs star teachers possess that guide their teaching behaviors towards exemplary levels; in contrast, he harshly described beliefs of quitter teachers in the context of failure efforts.

Haberman (2012) aligned with Dweck's (2010) research on teacher beliefs but explored the impact of teacher beliefs on school culture, risk taking, mutual respect and school success for all students. Haberman (2012) compared star and quitter teachers in the following manner: (1) stars commit to teaching and understand the reality of public school, and quitters look for excuses and succumb to burnout; (2) stars embrace all children, and quitters believe problem students should be in another classroom; (3) stars challenge all children to learn, and quitters focus on low level skill and drill; (4) stars seek out complex, connected curriculum to challenge students, and quitters teach basic concepts without clear connections; (5) stars approach all learning in the format of the scientific method of inquiry, and quitters view the scientific method unique to science,

not learning; (6) stars view student motivation their responsibility, and quitters view content as their only responsibility; (7) stars understand natural human development, and quitters look at unique student behaviors as discipline problems; (8) stars look for ways to improve, and quitters blame students when teaching becomes difficult; (9) stars embrace mistakes as learning, and quitters view mistakes as weakness; (10) stars believe that all students can learn to high levels, and quitters believe student potential is established; (11) stars prioritize relationship building, and quitters cannot separate behavior from who a student really is; finally, (12) stars highly value education for all students, and quitters view their responsibility to their students as just a job (pp. 1-3).

Based on Haberman's (2012) research, it is imperative to build continuous improvement school cultures that principals attract and cultivate teachers who internalize beliefs of a star teacher. Haberman (2012) also offered alarming findings that indicated "only one in fourteen teachers provided a stimulating classroom learning environment and only one in twelve teachers utilized effective instructional strategies" (p. 1). The striking mindsets of the quitters have screamed for school leaders' attention.

In summary, Haberman (2012) described quitters as teachers who (1) blame the system, (2) do not take the responsibility to teach all students, (3) focus on the basics with minimal attempt to promote higher thinking skills, (4) implement disconnected lessons, (5) believe that their responsibility is to those children who demonstrate a desire to learn, (6) do not understand the typical age appropriate behavior, and (7) will not admit mistakes due to fear of showing weakness (pp. 1-3). Quitters disturbingly equated relationship-building with students to love, which evolved into an inability to discern between student mischief and how they valued that student as a person (p. 3).

Basically, the quitter teacher does not understand how to interact with all students in a healthy manner, which can be critically damaging to students, and thirteen out of fourteen teachers qualify as quitters under Haberman's (2012, p. 1) analysis. Teacher and student relationships have been a primary factor for student success that led researchers to focus on teacher quality in their school reform efforts (R. Barth, 2001; Darling-Hammond, 2010; DuFour & Marzano, 2011; Palmer, 1998).

Students need Haberman's (2012) star teachers in a school culture where a growth mindset prevails. With further research, Dweck (2013) defined characteristics of a growth mindset school. In the following passage, she advocates behaviors for administrators, students, teachers and parents:

> Administrators support teachers' learning. They are responsive to honest feedback, rather than defensive. They seek to build their skills, and are willing to learn from their teachers. Teachers collaborate with their colleagues and instructional leaders, rather than shut their classroom doors and fly solo. They strive to strengthen their own practice, rather than blame others. They truly believe that all students can learn and succeed—and show it. Parents support their children's learning both inside and outside the classroom. They partner with teachers, and respond to outreach. They worry less about advocating for their children to get good grades and focus on making sure kids are being challenged and put in the effort needed to grow. Students are enthusiastic, hard-working, persistent learners. They take charge over their own success (p. 1).

The previous authors admonished that the cultivation of quality teachers is paramount to promote and sustain a continuous improvement culture. Determining the characteristics of quality teachers requires further research; and at the same time, principals must recognize the attributes of teachers who sabotage improvement efforts (Alvy & Robbins, 2010).

Similar to Haberman (2012), Palmer (1998) examined and framed "good and bad" (p. 11) teaching characteristics. However, unlike Haberman (2012) he tackled the raw

emotion of fear and delved into the impact fear has on teachers in the classroom. He warned, if fear affected teachers' abilities to teach, then fear influenced students' learning (p. 36).

Palmer (1998) argued that fear promotes a "disconnected life" (p. 35) for teachers because of grading systems, competition, bureaucracy and administration. More research might determine how fear originates with teachers; yet, Haberman (2012) maintained that a select group of teachers rise above the obstacles to teach all students to learn. Besides navigating the complexities of teacher growth, Elmore (2010) has proffered that principals must be cognizant of

> powerful new beliefs, the kinds of beliefs that transform the way we think about how children are treated in schools . . . are shaped by people engaging in behaviors or practices that are deeply unfamiliar to them and that test the out limits of their knowledge, their confidence in themselves as practitioners and their competencies.

Adult learning theory and development has also influenced teacher growth, since "experience plays a key role in adult intellectual development and especially in the development of expertise" (Pogson & Tennant, 1995, p. 3). According to Guskey (2007), as teachers develop their practice, past experiences will emanate as they seek mastery. Experience juxtaposed with beliefs, cultural backgrounds and educational experiences might be the recipe to cultivate a quality teacher (Dweck, 2006).

In the context of the impact of fear on teacher growth, Palmer (1998) accessed Erick Erickson's research results from 1963 that define adult development in two ways: "stagnation and generativity" (p. 48) . Most theorists agreed with Erickson's notion that generativity builds on prior stages of life (Bee, 2000). Erickson defined generativity as "primarily the concern in establishing and guiding the next generation" [and it]

"encompasses procreativity, productivity and creativity" (p. 37). Palmer (1998) predicted that it is ironically the fear of their students that drives teachers to choose stagnation. Once fear embeds in teachers' hearts, teachers and students disengage from each other and the cycle of fear perpetuates.

On the other hand, many teachers chose generativity that Palmer (1998) coined as " creativity in the service of the young – a way in which the elders serve not only the young, but also their own well-being" (p. 49). A school of teachers who chose generativity as a vehicle to experience life opens a door for principals to create a culture of continuous improvement. The perpetual daunting question of how to guide teachers to choose a path of learning or generativity needs further study. Socially intelligent leaders, who have developed generative leadership skills (Klimek et al., 2008), combined with adult learning provide a toolbox for principals to construct a school climate of learning that leads to a culture of improvement (Drago-Severson, 2012).

Drago-Severson (2009) weaved multiple adult learning theories together to define what she coined four pillar practices for teacher learning: (1) teaming, (2) leadership roles, (3) collegial inquiry, and (4) mentoring (p. 22). Tate (2005), also infused adult learning needs into contemporary teacher professional development. Through field research the author concluded that adults engage in learning when they have input, understand new knowledge through their appropriate learning style, address real issues instead of theory, and time is allotted for reflection, and support. A well-defined construct, such as the pillar practices, combined with a heightened understanding of adult learning theories may be the foundation for professional learning strategies for teachers (Drago-Severson, 2009).

Based on the previous literature, principals should consider designing professional development in concert with adult learning. In addition, by combining adult learning with elements of social intelligence, principals might find success in reducing fear by increasing trust (Bowden, 2010; Drago-Severson, 2009).

Even with the right conditions in place, Palmer (1998) emphasized that trust must be in place before fear will subside to allow for safe conditions for teachers to learn and grow. Teachers are humans and basic biological traits apply. In 1943, Abraham Maslow (as cited in Huitt, 2007) developed the "hierarchy of needs" that placed the need for safety and security second to the basic physiological needs in order to achieve basic competence (p. 1). Without safety, a sense of belongingness and acceptance cannot be achieved that is a precursor to the next four levels. Self- actualization (the ability to realize one's potential) and transcendence (the ability to help others find fulfillment and realize their potential) must be grounded in safety in order to occur (Maslow, as cited in Huitt, 2007).

Besides the basic survival needs, principals must recognize that safety fundamentally anchors the efforts of a continuous improvement culture or success is jeopardized (Reeves, 2009). The concept and importance of trust has been well researched but attaining and then sustaining trust amongst teachers has fallen on the shoulders of the principals (Allensworth et al., 2010).

Based on the literature, I incorporated trust into the qualitative data collection portion of the study to bring forth both teachers' and principals' perceptions on the importance of trust in a continuous improvement school culture. The next section

examines the literature regarding relational trust between principals and teachers designed to build school improvement cultures.

Role of the Principal in Cultivating Trust

Research from both the business and education sectors state that a trustworthy collegial atmosphere is the foundation for a continuous improvement culture. This next segment reviews the role of the principal in developing trust to build a continuous improvement culture, including the use of organizational protocols.

Promoting and Sustaining Trust

The primary definition of trust is "reliance on the integrity, strength, ability, surety, etc., of a person or thing; confidence" (APA, 2012, p. 1). Trust builds positive productive workplace cultures where participants demonstrate high comfort levels of self-reflection, risk taking and an authentic desire to seek improvement professionally (Bryk & Schneider, 2005; DuFour & Marzano, 2011; Goleman, 2011a; Klimek et al., 2008; Lencioni, 2012).

Over time familiar terms evolved such as teamwork (Bennis et al., 2008; Lencioni, 2002, 2012), communities of practice (Wenger, 2006), highly effective learning communities HELCs (Ciesluk, 2011), professional learning communities known as PLCs (Dufour et al., 2008), and adaptive work cultures (Grashow et al., 2009; Heifetz, 1994). Regardless of the title, common understandings of what continuous improvement cultures resemble have surfaced and are grounded in trust.

Dissecting and then analyzing trust is an essential step to embed and sustain trustworthy relationships amongst colleagues (Cross & Parker, 2004). In other words, the ways people perceive trust, and the interplay between people in the workplace, connects

to the effectiveness of professional improvement (Drago-Severson, 2009). The questions, discourse. and debates in the workplace implied that trust is critical to developing and maintaining a culture of continuous improvement amongst colleagues (Heifetz, 1994). Trust must be commonly understood in schools to build trusting relationships (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Cross & Parker, 2004; Fink & Hargreaves, 2006).

Through qualitative research analysis Cross & Parker (2004) defined two types of trust that significantly impacted improvement and learning amongst colleagues. "Competence based trust focuses on ability and benevolence based trust focuses on vulnerability" (p. 99). Contractual trust was typically seen in written agreements, which stem from shared conversations and agreements (Reina & Reina as cited in Fink & Hargreaves, 2006). The term relational trust included mutual respect that demands truth, integrity and an authentic willingness to make mistakes (Blankstein, 2004). Trust must be defined and behaviors outlined in the context of individual school environments to achieve effective levels of trust (Kouzes & Posner as cited in Blankstein, 2004).

Clearly, the concept of trust has become a saturated complex term that requires a shared understanding. Creating and sustaining trust has been the responsibility of leaders (Fink & Hargreaves, 2006; Lencioni, 2012). Besides setting conditions to establish trust, principals must convey to teachers that trust builds and strengthens a school striving for a collaborative continuous improvement culture (Bryk et al., 2010; Klimek et al., 2008). If trust fosters a highly effective learning community (Ciesluk, 2011), then promoting and establishing trust amongst teachers must be a priority for principals (Hord as cited in Blankstein, 2004).

Trustworthy learning communities might be better understood juxtaposed with school cultures void of trusting relationships. "The opposite of trust is betrayal" (Fink & Hargreaves, 2006, p. 216). As previously implied by Fink and Hargreaves (2006), the piercing sound and meaning of betrayal raised the necessity of trust from prevalent to paramount when viewed from the perspective of what organizations look like without authentic trust.

Lencioni (2002) coined the phrase and context of "the five dysfunctions of a team. [He lists the five dysfunctions as] (1) absence of trust, (2) fear of conflict, (3) lack of commitment, (4) avoidance of accountability, (5) inattention to results" (p. 188). The author framed his model in a reverse order pyramid to depict the absence of key elements of effective team behaviors. He identified that vulnerability occurs without trust, then leads to a fear of conflict resulting in a desire for artificially harmonious relationships. Fear of conflict promoted ambiguity that allowed for the avoidance of accountability promoting an acceptance of low standards. All of these emotions and behaviors then drove inattention to results that fueled the ego and desire for recognizable status. Over the past decade Lencioni (2012) coined the term "organizational health [and maintained it is the] single greatest advantage any company can achieve. . . Yet, it is ignored by most leaders even though it is simple, free, and available to anyone who wants it" (p. 16). The author redefined integrity to better explain organizational health:

> an organization has integrity-is healthy-when it is whole, consistent, and complete, that is, when its management, operations, strategy, and culture fit together and make sense (p. 18).

It is becoming clear that to grow healthy cultures all parts of an organizational system must be rooted in trust to reach ultimate levels of desired success (Fullan, 2013; Klimek

et al., 2008; Lencioni(2012). Healthy school cultures thrive when principals cultivate relationships throughout their schools (Ciesluk, 2011).

The research findings provided by the preceding authors contributed to the conceptual framework for this study. Developing trustworthy relationships set the groundwork for change to improve schools. By using simple language, symbols and possible metaphors that everyone understands (Kotter, 1996), principals might embed a deeper sense of trust into their school communities to build a foundation for developing continuous improvement cultures (Fink & Hargreaves, 2006). The next section examines protocol use to assist principals with ways to build trust.

Use of Protocols to Build Trust

By using simple, memorable terms to develop common language amongst stakeholders, both business leaders and principals promote cultures of shared understandings (Dufour, 2008; Kotter, 1996; Stanford, 1999). Even though common terminology has progressed, setting conditions for agreed upon teacher behavior requires further action by principals. With the right conditions in place, principals might increase the likelihood of composing highly effective learning communities in their schools (Ciesluk, 2011). However, unless teachers have been taught how to collaborate in meaningful discussions, their conversations will not improve their instructional practice (Hiebert & Stigler, 1999). For example, structuring conversations with consistent use of protocols ensures that teacher behavior has met previously decided upon expectations (Hastings, 2003).

More specifically, "protocols help educators achieve trust and create a culture that is essential for collaborative work on issues of substance" (Easton, 2009, p. 1). Protocols

guide teachers' thinking, assist with problem solving, and allow for safe conversation to provide venues for warm and cool feedback and to focus exploration through research and text. Without protocols to assist teachers in effective collaboration, a typical meeting might constitute surface conversations pertaining to scheduling of events, student discipline, and possibly curriculum alignment. Moreover, a few teachers might monopolize the conversation while others remain silent due to a lack of safety and trust sabotaging collaborative work (Easton, 2009).

Lencioni's (2002, 2012) pyramid, which outlined five dysfunctions of a team, exhibited trust as the pillar grounding the team. Repeated use of the pyramid to define behaviors provided a safe structure for collaborative discussion, particularly when difficult topics arose.

Through field research Judith Warren Little (1982) categorized types of conversations into four levels: storytelling, assistance, sharing and joint work (p. 1). These levels of conversation provided structures for teachers to better understand behaviors that constituted high levels of collaborative work. Most collaborative situations mirror storytelling or assistance, but to reach the sharing and joint work levels, teachers need trained facilitators. Facilitated protocol use guides teachers to achieve the level of collaboration where they probe deeply into each other's thinking (Curry, Gearhart, Kaftka, & Little, 2003, pp. 185-190).

Principals need to ensure that teachers are trained to facilitate protocol use as a tool to become a continuous improvement school culture (NSRF, 2001). However, well-facilitated protocols must be in concert with the behaviors of principals to influence the

continuous improvement of teachers. The subsequent section examines the positive leadership qualities that influence continuous improvement school cultures.

Leadership Qualities That Influence School Culture

Since the 1970s, research concluded that school effectiveness directly links to leadership (NSRF, 2001). Theorists analyzed studies and formed conclusions that identify the behaviors of an effective principal. Similarities emerged and lengthy lists formed connecting the effects of principal leadership and student achievement. For example, in 2003, Kathleen Cotton (as cited in Marzano et al., 2005) identified twenty-five categories that described principal behaviors that positively impacted student learning. Cotton's research served as a foundation for others to synthesize her work into more descriptive leadership qualities to provide a better understanding of effective leadership (Marzano et al., 2005). However, a lengthy and unprioritized list of necessary behaviors for effective leadership "explains why it is so difficult to be an effective school leader. The variety of skills a leader must master is daunting indeed" (Marzano et al., 2005, p. 62).

Through further research the Wallace Foundation (Anderson, Leithwood, Louis, & Wahlstrom, 2004) revealed that leaders exercising flexibility created school conditions that promoted student learning. Flexible leaders also demonstrated an ability to exercise emotional intelligence that sets a foundation to better develop people (Anderson et al., 2004).

Threaded throughout this review, the literature defined social intelligence as an essential quality of strong leaders (Bennis et al., 2008; Boyatzis & Goleman, 2008; Goleman, 2006, 2011a, 2011b; Klimek et al., 2008). More specifically, "listening well

distinguishes the best managers, teachers and leaders" (Anderson et al., 2004, p. 7). The blended qualities of flexibility and social intelligence provided school leaders with a baseline foundation to develop additional critical aspects of school leadership (R. Barth, 2001; Klimek et al., 2008).

Dufour and Marzano (2011) and many others maintained that effective leaders set direction by establishing a shared purpose through collaborative means to foster a deeper understanding of the school. School leaders who cultivate motivation understand that "people are motivated by goals which they find personally compelling as well as challenging, but achievable" (Anderson et al., 2004, p. 8). As the previous literature indicated, principals must grasp the identified conditions that improve schools but simultaneously nurture their leadership styles to create and sustain a continuous improvement culture.

Since scrutiny by politicians, community members, parents, students and teachers still plagues American education (Hammond, 2010; Ravitch, 2010), other negative factors surfaced that impacts principal leadership. For example, Americans' own school experience informs their beliefs and values on what schools should be. Principals have been expected to oversee all components of their schools while balancing limited resources, predetermined expectations and possibly uninformed demands by central office, parents and teachers (Kaftka, 2009).

The Wallace Foundation Report ("Appraising a decade's work: Lessons learned and implications for the future," 2009) reexamined the growth in American schools over the past ten years. This research uncovered that while school leadership has been recognized as "a necessary ingredient for school reform, . . . improving conditions for

which leadership operates has proven very difficult" (p. 9). This situation will continue to challenge principals' efforts to improve schools.

According to Blankstein (2004) a relentless focus on a continuous improvement culture will assist with the balance of competing values and demands. The research is clear about the role of school leadership: stakeholders perceive principals as instrumental in the building of culture. Principals must exhibit personal beliefs and values that support a continuous improvement culture (Marzano, 2005).

If principals expect teachers to improve, learn and adopt a growth mindset for themselves, they must also strive to foster their own growth, regardless of the level of difficulty. They need to understand that "being the principal learner is the most important thing I can be in my school" (Fellow as cited in R. Barth, 2001, p. 143). Modeling life-long learning, risk-taking and curiosity surfaced as essential attributes for principals to prioritize, so teachers trust that the expectation to continuously improve have been set for the entire learning community (Kouzes & Posner as cited in Dufour & Marzano, 2011).

Identifying effective strategies to address different situations also emerged as a necessary leadership skill for principals to develop (Alvy & Robbins, 2010; Carroll, 2007; Collins, 1996). Leadership, management and facilitation have been distinctly defined as different roles for principals to adopt (Dweck, 2006). For example, setting direction required a leadership stance, task completion needed an organized management style, and facilitation has been most effective with building teams, goal setting and collaborative learning (Farell & Weaver, as cited in Gray, 2006).

Even with an understanding of leadership types, principals must understand how they unknowingly might sabotage a continuous improvement culture with behaviors that discourage teachers to lead others towards improvement (Gray, 2006). For example, "adminstrators may adopt the framework of a new, popular management concept but implement something quite traditional" (Evans, 1996, p. 176). In other words, the actions of principals need to match what they say.

Barth (2001) stated that principals need to relinquish authority and trust teachers to take an integral role in building a culture of learners. All teachers must be included to avoid a potential elitism that might form if only a chosen few are included in decision-making (p. 109). Furthermore, if only a small group are included, they become overburdened and building capacity in others becomes a missed opportunity (DuFour & Marzano, 2011).

As a continuous improvement climate evolves into an embedded norm, teachers and principals must find ways to make decisions, manage conflict, and embrace change to sustain an improvement culture (Fink & Hargreaves, 2006). Cuban's (2001) approach to reframing problems and dilemmas provides a structure for conversation to invent new ways to interpret familiar situations. Once problems or dilemmas are reframed, a clearer understanding of the issue allows principals and teachers to create viable solutions and share in assessing the outcome (Cuban, 2001). However, it is not uncommon for dilemmas or problems to stem from system issues or central office leadership that leaves a principal with unacceptable options (Stanford, 1999).

The role of central office leadership that influences student learning, particularly the superintendent, needs to be further studied. However, according to Cuban (2012),

three key practices have emerged about central office leadership, "capturing school personnel attention, capacity building and pushing the implications of state policies into schools and classrooms"(Cuban, 2012, p. 10). In other words, superintendents must communicate the rationale behind goals and initiatives, provide valuable professional learning for teachers, and help teachers and principals understand what lies behind the national agenda and local politics (Anderson et al., 2004). But superintendents must embrace the idea that for principals to succeed in creating a culture of continuous improvement, they must have "the unqualified support of their superintendents" (Hiebert & Stigler, 1999, p. 138).

The 2004 Wallace Foundation study reported that effective superintendents assisted principals in defining purpose, data collection and analysis (Fullan & Sharratt, 2009). Principals need to become assessment leaders, not just data collectors, to create a culture of learning by

> modeling the strategies we promote, support through monitoring –the work that teachers must do to implement new practices. Daily, we must be willing to practice what we preach and learn alongside our teachers regarding what works best in creating balanced assessment systems that honor the natural learning process (Anderson et al., 2004).

Data has provided teachers with information about student performance, but potentially burdens teachers with perceived extra work if they do not link assessment data directly to inform their instructional decisions to impact all students learning (Erkens, 2009). Principals must define the purpose of data use, make data analysis safe for teachers to collaborate about results and insure that data provides means for teachers to use new instructional methods so students meet defined learning targets (Erkens, 2009).

Principals need to remember that teachers count on them for support in order to effectively work with data to better their instruction (Huff, 2009). Teachers need to feel safe and trust that data analysis is intended for instructional improvement and student learning, not evaluation. Hufff (2009) states

> trust and respect are the foundation of collaborative teamwork in building and using assessments. When principals model risk taking, when they promote safety in examining formative assessment data without making it evaluative, when they teach, monitor and celebrate teachers using data, they build trust (p. 32).

Effective principals have made the extra efforts to build and sustain trust amongst their teachers. In addition, principals striving for a culture of improvement will go beyond modeling and engage the entire school in risk taking to learn (Huff, 2009).

The previous section delineated leadership qualities necessary to promote continuous improvement school cultures. As school reform progresses, leadership beyond the realm of principals requires further research. This study examined how principals' social intelligence links to teacher improvement, but the affect of social intelligence can be generalized to school leaders in any capacity.

Chapter Summary

Just like there is "no silver bullet, no magic feather, no panacea that will miraculously improve student achievement" (Ravitch, 2010, p. 229) there is no perfect principal for all schools. However, this literature review linked successful leaders, neuroscience, and history together, regardless of the circumstances or situations.

Defining leadership offered debatable, ongoing discourse, but for the purpose of identifying the qualities of a principal who can develop and sustain a continuous improvement culture, the concept of leadership must be viewed as an action, not an

inherent quality (Heifetz, 1994). By viewing the perspective of leadership as an activity, then different leadership needs might be framed with effective approaches outlined to lead people to accomplish a common goal (Grashow et al., 2009).

Neuroscience research expanded leadership possibilities by further study of the natural functions of the human brain. Goleman (2006, 2011a) distinguished social intelligence as a contributing factor for leaders to utilize to expand skillsets to lead in the 21st century. Goleman (2006) stated that "social intelligence is social awareness and social facility. Social awareness is what we sense about others and social facility is what we do with that awareness" (p. 84). By way of review the seven categories of social intelligence, delineated by Boyatzis and Goleman (2008), framed the surveys and interview questions for the data collection phase of the study.

Elements of social intelligence emerged as effective elements of contemporary leadership (as defined by Boyatzis & Goleman, 2008). Klimek (et al., 2008) offered the generative leadership style approach with three key components: (1) generativity, (2) living system principles, and (3) brain/mind science. Specifically, generativity described leaders who challenge the status quo by revisiting what others might view as a viable solution to any situation by thinking outside assumed parameters. These leaders succeeded in creating new solutions.

Generative leaders understand that systems constantly change, and they must lead others to effectively adapt to change. The application of brain research to leadership connected generative leadership to social intelligence. Generative leaders seek out information provided by the neuroscience field to increase their leadership capacity (Klimek et al., 2008).

Principals must holistically view their school environments with a balance of daily minutiae (Frank & Miles, 2008). Metaphorically, successful principals view their schools from the "balcony" in order to make effective decisions (Heifetz, 1994). It is the balcony view that might assist principals to grow a continuous culture (Grashow et al., 2009).

Besides determining what to prioritize, principals must also discern what actions to prohibit (Alvy & Robbins, 2010). In other words, established guiding principles and goals determine direction, and disconnected ideas or behaviors must not be tolerated or considered (Heifetz, 1994).

The reality for principals also lies with teachers who resist the idea of continuous improvement for a multitude of reasons, or possibly sabotage culture with negative comments, dishonesty, and avoidance potentially derailing whole school improvement efforts (Dufour & Marzano, 2011). Principals need to realize that if improvement requires change, this change might symbolize for many teachers a "death of past practice" (Reeves, 2009, p. 45). Principals must embrace resistant teachers and most likely go "against every human instinct to avoid unpleasant people" (Capparell & Morrell, 2001, p. 140) and make specific efforts to understand the motivation behind their actions. Moreover, principals must discern individual strengths and set conditions for those strengths to focus towards the common good.

Difficult conversations layered with emotion typically persist at some degree for most principals (Hess, 2009). Turning ineffective chatter to focused discourse to improve teaching might be simplified with appropriate tools. Principals who embed protocols and norms into their school cultures minimize unrelated conversation and create conditions

for efficient, collaborative meetings that are directly correlated to the school goals (Easton, 2009). In addition, principals might strengthen teams by following models that inform teachers what effective teams resemble and provide them with strategies to grow and sustain team strength, which begins with common understandings of trust (Lencioni, 2002, 2012).

Even with strong teams grounded in trust, (Bryk et al., 2010; Fink & Hargreaves, 2006; Lencioni, 2002) principals must also recognize that it is their job to cultivate teachers to adopt a growth mindset (Dweck, 2010). Without acknowledging the personality traits of each individual teacher, principals might miss opportunities to further strengthen school cultures (Dweck, 2006; Kirtman, 2014).

Principals need to remember that as they cultivate their own leadership platforms and set conditions for developing a shared mission within their schools, they must assess themselves because "first, you have to understand yourself because the hardest person you will ever lead is yourself" (George as cited in Alvy & Robbins, 2010, p. 14). A continuous culture of learning includes the principal, who like the teachers, must aspire to do whatever it takes to strengthen the school culture to improve instruction so that all students can learn. A high level of leadership requires humility and an ability to balance ego with the goals of the school (Bennis et al., 2008; Goleman, 2011a; Kegan & Wagner, 2006).

Unequivocally, the personal qualities and abilities necessary for principals to be effective intensifies to a higher degree of complexity as educational challenges abound with the relentless demands for school reform (Dufour & Marzano, 2011; Fink &

Hargreaves, 2006). Principals must remember that "good seeds grow in strong cultures" (King & Saphier, 1985, p. 1), and then embrace the moral courage to lead (Alvy & Robbins, 2010; Carroll, 2007; Collins, 2001).

The factors that pertain to what principals must know and be able to do to grow continuous improvement school cultures have been brought to the forefront with recent research (Anderson et al., 2004; Kegan & Wagner, 2006; Klimek et al., 2008). The literature showed that the business sector (Frank & Miles, 2008; Marzano, 2005), combined with neuroscience research (2012; Klimek et al., 2008) provided leadership strategies to inform principals on ways to cultivate their own leadership platforms. Building teacher capacity by understanding mindsets has been suggested by the literature as a viable way to influence school climate to then transform into a community of learning (Dweck, 2010; Palmer, 1998; Torff, 2011). Moreover, collaborative teaching teams grounded in trust might set safe conditions in which teachers confidently embrace reviewing their teaching practices for improvement (Allensworth et al., 2010; Cross & Parker, 2004; Easton, 2009; Kegan & Wagner, 2006).

If principals focus on the concept of continuous improvement and use effective social intelligence, creating and sustaining school cultures of continuous improvement might succeed more frequently. The literature review has attempted to show how these components combined might contribute to a continuous improvement culture to impact school reform. However, the literature also pointed out that principals need a deeper understanding of how to grow within themselves as educational leaders to fully understand what the teachers in their schools specifically need from them to become better teachers.

My teaching and administrative experience sparked the initial interest to examine the topic of social intelligence linked to continuous improvement. This review of literature has provided a conceptual framework for this study by (1) discussing research about social intelligence and continuous improvement, (2) connecting social intelligence to leadership, and (3) examining teacher mindsets, school cultural factors and leadership qualities that impact continuous improvement.

Chapter Three explains the research design and methodology used to conduct the study. It provides a rationale and articulation of the sequential explanatory mixed method research approach employed to conduct the four phase study. It includes detailed discussions about both the quantitative and qualitative measures used for data collection to address the three research questions that led to four major findings.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLGY

Introduction

The study examined the link between principals' social intelligence and teachers' continuous improvement using a mixed method sequential explanatory research approach structured with quantitative and qualitative measures. In developing the study I hypothesized that principals need to better understand social intelligence and its relationship to leadership. Overall, the study sought to generate information about qualities and skills school leaders need to impact American education in the 21st century.

The chapter is organized in the following manner: (a) philosophical worldview and influence of social cultural perspective, (b) overview of the research design, (c) data collection, (d) data analysis, (e) trustworthiness of the study, (f) limitations and delimitations, and (g) chapter summary.

Philosophical Worldview and Influence of Social Cultural Perspective

My twenty-five years of combined teaching and administrative public school experience influenced the study. From these experiences I maintain that the actions needed to reform American education must take place primarily with the practitioners. My experiences, validated by research, suggested that the very nature of educational improvement is value laden (Hess, 2009). Personal experiences and values influence how teachers and principals perceive teaching and learning. The competing values of educators intrigued me to delve more deeply into how human behavior impacts school improvement. It cannot be assumed that all teachers prioritize learning for all students, or that they continually improve their instruction to benefit all students equitably.

My interest in the topic originated with the human elements of change involved with improvement. Throughout my tenure as an educator, I could not understand why numerous teachers resisted change even though the change improved their instruction or made their jobs easier. Hence, my desire to learn more about how change impacts human behavior grounded my study to examine how principals' behaviors in the context of social intelligence connected to teacher improvement. DuFour and Marzano (2011) stated that "school improvement means people improvement" (p. 15); however, it was their lack of an in-depth explanation of this phenomenon that further validated my research. For teachers to improve principals need to understand how their own behavior impacts teachers.

A social constructivist worldview described by Creswell (2009) provided the structure that framed my study:

> social constructivists hold assumptions that individuals seek understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences-meanings directed toward certain objects of things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas. The goal of the research is to rely as much as possible on the participants' views of the situation being studied. . . . Researchers recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences (p. 23).

The participants' multiple perceptions and various personal worldviews impacted the three research questions that generated information linking social intelligence and continuous improvement to a broader and deeper level of understanding. The ensuing section explains the overview of the research design and the rationale behind the mixed method approach.

Overview of Research Design

A mixed method approach utilizing a sequential explanatory strategy framed study. The next section outlines (a) the rationale for mixed methods approach, (b) the selection of participants, (c) an explanation of the mixed method approach, and (d) the research questions.

Rationale for Mixed Methods Approach

Creswell (2009) defined the sequential explanatory strategy as "the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results" (p. 211). The sequential explanatory method interpreted the quantitative data at a deeper and more personal level with qualitative measures. Creswell's (2009) rationale for the mixed method sequential approach that applied to this study allows researchers to

> organize the report of procedures into quantitative data collection and quantitative data analysis followed by qualitative data and collection and analysis. Then in the conclusions, or interpretation phase of the study, the researcher comments on how the qualitative findings helped to elaborate on or extend the quantitative results (p. 220).

The study unfolded in four phases beginning with the quantitative survey. Phases Two and Three utilized qualitative approaches, and Phase Four mixed quantitative and qualitative measures together. The framework for the participant selection process is explained in the next section.

Selection of Participants

The participant selection consisted of principals and teachers from K- 12 in Massachusetts. The quantitative survey procured a larger sampling of participants across

Massachusetts. Initially, I used SurveyMonkey ("SurveyMonkey," 2013), an electronic survey tool, to randomly contact via email 127 principals and 331 teachers. Participants from the larger sample size then volunteered for the qualitative portion of the study rendering a more diversified group of subjects to participate for all the phases, rather than if I contacted people I knew.

To attain a diverse sampling across the state of Massachusetts, I solicited a minimum of one principal from each county through the Massachusetts Department of Elementary and Secondary Education ("Massachusetts department of elementary and secondary education," 2013), abbreviated as the DESE. Teacher email addresses were inaccessible through the DESE, so I contacted teachers randomly through individual school websites. In addition, principals and teachers associated with Lesley University volunteered to participate in the surveys. The process for soliciting participants through an initial quantitative survey followed the mixed methods sequential explanatory approach that is explained in the next section.

Explanation of the Mixed Methods Approach

Denscombe (2012) characterized the mixed method approach according to three distinguishing features. First, the mixed method approach entails a combination of qualitative and quantitative methods to examine the identified problem grounding a study. Second, the multiple uses of quantitative and qualitative measures investigate a research problem from a wider range of perspectives. Third, researchers develop research instruments through the mixed method approach based on previously collected data to glean in-depth information. The three features fused together provided a research framework for this study by using both quantitative and qualitative approaches.

To improve the accuracy of research, the mixed method approach assists researchers in determining the order and the importance of the quantitative and qualitative methods and aids in data analyses and sampling (Denscombe, 2012). For this study, I mixed the two types of data which means, "either that the qualitative and quantitative data are actually merged on one end of the continuum, kept separate on the other end of the continuum or combined in some way between these two extremes" (p. 208).

The Phase One survey unveiled teachers' and principals' descriptive data through quantitative measures (see Appendices A and B). Participants chose to respond in written text in Phase Two (see Appendices A and B, Section Two), and then chose to participate in the interviews for Phase Three (see Appendix C). I collaboratively designed the Phase Four anonymous teacher survey with participating principals (see Appendix D). Unlike the principals, these teachers did not participate in the entire study. The principals' information was gleaned from all phases of the study, then juxtaposed and combined with the teacher data for Phase Four. According to Creswell (2009), connecting and then integrating quantitative and qualitative data within the mixed method approach allows for clearer data interpretation for analysis.

Since I employed both quantitative and qualitative approaches, the abbreviated terms QUAL and QUAN indicated qualitative and quantitative data respectively. Data analyzed together showed the dominating method in all upper case with the less dominant in all lower case (Denscombe, 2012). For this study the quantitative measure initiated the first phase followed by the dominating qualitative measures (quan =>QUAL) for Phases Two and Three. The interview data acted as the dominating data for the analysis. In

Phase Four quantitative teacher data and qualitative principal data held equal status (QUAN=>QUAL). In the incidences where qualitative and quantitative teacher data conflicted the qualitative data dominated the analysis. The distinct approaches throughout the study unveiled multiple participant perspectives on the research topic.

The mixed method approach structured the research to examine the problem that principals lack awareness of the connection between social intelligence and leadership to improve education. Denscombe (2012) stated that " pragmatism is generally regarded as the philosophical partner of the mixed methods approach" (p. 148) based on the following core ideas:

> Knowledge is based on practical outcomes and 'what works.' The key criterion for judging knowledge is how useful it is perceived to be and how well it works when applied to some practical problem. Research should test what works thorough empirical enquiry. There is no single, best scientific method that can lead the way to indisputable knowledge. Knowledge is provisional. What we understand as truth today may not be seen as truth in the future. Knowledge is a product of our times. It can never be absolute or perfect because it is inevitably a product of the historical era and the cultural context that it is produced. The quest for absolute truth is consequently seen as a hopeless cause. Traditional dualisms in the field of philosophy and science are regarded as not helpful. In particular, there is skepticism about the distinction between quantitative and qualitative research, but there is also rejection of distinctions like facts/values, objectivism/subjectivism and rationalism/empiricism (p. 148).

In simple terms, the underlying principle that guides researchers with the mixed method approach is "what answers my question" (Denscombe, 2012, pp. 148-149). The pragmatic nature of the data offered an authentic understanding that principals need to delve deeper into their own social intelligence capacity and to recognize the influence their behavior might have on teacher improvement. The following research questions guided the study within the mixed method approach guidelines.

Research Questions

Three research questions framed the study to examine how the social intelligence of principals links to the continuous improvement of teachers. I designed the questions based on the hypothesis that principals' behaviors impact how teachers' respond to continuously improving their instruction.

1. What are ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?

2. How do teachers view their principals' social intelligences in promoting or hindering their continuous improvement?

3. What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

The survey directions (see Appendices A and B) asked participants to select or write answers that most closely described their experiences or represented their beliefs; therefore, I assumed that participants responded to the three research questions through the lens of their experiences and perspectives during the data collection and analysis. The process of the data collection is further explained in the following section.

Data Collection

As previously noted, a mixed method combination of quantitative and qualitative measures structured the study design. This section explains each phase of the four-phase study. Phase One included a quantitative survey with initial demographic descriptive data collected. Phase Two incorporated an open-ended questionnaire for teachers and principals who chose to participate further in the study. Phase Three entailed volunteer

interviews with teachers and principals. Phase Four involved four principals who surveyed their teachers with anonymous electronic questionnaires.

Phase One

Phase One of the sequential explanatory strategy initiated the study with quantitative surveys (see Appendices A and B). For the principals the quantitative data provided (a) descriptive information, (b) a measurement of familiarity and self-analysis of social intelligence, and (c) a prioritization and value level for continuous improvement. I designed the surveys through the skip logic feature available in Survey Monkey (2013) that prompted participants to continue the survey or stop and submit their responses. Participants who stopped identified their reasoning in a multiple-choice format.

I developed the teacher survey with distinct similarities to the principal survey in an effort to simplify the analysis phase. Like Phase One of the principals' survey, the teachers' survey sought descriptive information, and value level of continuous improvement, but differed with questions regarding social intelligence. I also used the skip logic feature in SurveyMonkey (2013), so teachers could choose to continue or stop and submit their answers. Participants who stopped identified their reasoning in a multiple-choice format.

I used SurveyMonkey (2013) to contact principals and teachers via email, but access differed on the availability of email addresses For principals the survey access lasted for three months beginning in November 2012, with two reminder emails sent in three-week intervals with email addresses from The Massachusetts Department of Elementary and Secondary Education –DESE (2013). At the time of the survey, the

DESE (2013) did not list Massachusetts teachers' email addresses, so school websites served as an alternate option. For teachers the survey access lasted three months beginning in mid December 2012, with two reminder emails in three-week intervals.

This initial contact with both teachers and principals set a foundation for the rest of the study. Because I assumed that an initial longer quantitative survey might deter potential participants from responding due to personal time constraints, the Phase One survey required about ten minutes. A second rationale for the survey design intended to spark interest in the topic for participants to continue with the following phases.

The quantitative survey was a non-probability purposive subject sampling in order to attempt to produce an exploratory sample of subjects with a predicted confidence interval of 95%. Creswell (2009) defined a non-probability purposive sampling as a strategy that allows researchers to contact potential participants who can best inform the researcher specific to the study. The confidence interval is the "best estimate of the range of a population value given the sample value" (Salkind, 2011, p. 431). For this study I used SurveyMonkey (2013) to contact 127 principals and 331 teachers via email across Massachusetts. A Likert type attitude inventory measured participants' familiarity with social intelligence and level of value for teachers' continuous improvement.

Schuyler Huck (2008) explained a typical Likert attitude inventory as a measuring instrument that "indicates a level of agreement or disagreement with each of several statements by selecting one of four or five options" (p. 479). The Likert scale measurement instrument does not weight one question more important than another. Also, the attitude of the participants may be shaped positively or negatively by certain questions, yet the responses are all weighted equally when totaling scores. The Likert

scale produced ordinal data that provided an inferred order of agreement but determining the causes behind the participants' responses was not expected. The Likert scale instrument guided the participants to the next phase of the questionnaire based on their interest in continuing the study.

Phase Two

The second phase gathered qualitative data through text-based written answers electronically via SurveyMonkey (2013) within the provided framework of social intelligence (Goleman, 2006) and continuous improvement (as defined by Duffy, 2003; Kegan & Wagner, 2006). Offering common definitions for these terms shaped participants responses by using standard vocabulary to garner comparable data (see Appendices A and B, Section 2).

The data revealed traceable threads that exposed themes, patterns and unique information that informed the interview questions for each participant (see Appendix C). Ninety four and one percent of the principals, and 85.1% of the teachers chose to participate in Phase Two. The end result of Phase Two showed 21/32 (66%) of principals, and 20/40 (50%) of teachers responded to all the questions in Phase Two.

Phase Three

Phase Three included face-to-face or phone interviews using a convenience sampling of participants from Phase Two to conduct purposeful interview sessions in a feasible timeframe. The mixed method approach yielded data from Phase Two to develop interview questions specific to answering the Research Questions One and Two.

For the interview phase (Phase Three) of the research, the questions intended to elicit a deeper understanding of participants' answers from the open-ended questions

(Phase Two). The interviews were a combination of semi-structured and unstructured formats. Denscombe (2012) explained that "with semi-structured interviews the interviewer still has a clear list of issues to be addressed and questions to be answered… [and] unstructured interviews go further in the extent to which emphasis is placed on the interviewee's thoughts" (p. 175).

For this study I intertwined both methods for each interview, based on Denscombe's (2012) explanation of the interview formats. Fourteen principals and five teachers volunteered for the interview phase. Due to time constraints and availability of the principals, I interviewed 9 of the 14 principals, but I successfully interviewed all five teachers.

Phase Four

Four principals participated in Phase Four to anonymously survey their own teachers to identify the similarities and differences between teacher and principal perceptions of what effective social intelligence is needed for them to lead their teachers to improve. I collaborated with the principals to develop questions in order to improve targeted areas of social intelligence related to individual leadership styles. I provided sample questionnaires for each principal to peruse. All principals chose the same questionnaire (see Appendix D).

Participation Data Table

The *Participation Data Table*, Table 3.1, presents the numbers of teachers and principals who participated in each phase of the study.

Table 3.1

Participation Data

Principals contacted	Phase One	Phase Two	Phase Three	Phase Four
127	34	22	9	4

Teachers contacted	Phase One only	Phase Two	Phase Three	Phase Four
331	47	20	5	41

Note. Teachers in Phase Four were only contacted for the individual school surveys.

Data Analysis

The data analysis section mirrors the four phase mixed method sequential explanatory approach used in the study. Principal data analysis is followed by teacher data analysis and individual school data analysis, with key findings listed according to the three research questions.

In Phase One quantitative data are analyzed about principals' (a) demographic backgrounds, (b) years experience, (c) familiarity with social intelligence, and (d) the degree they exhibit behavior to assist teachers to improve. These data corresponded to Research Question One. The quantitative descriptive data about teachers' (a) demographic backgrounds, (b) range of time working with their current principal, and (c) the level they felt their principal assisted them to improve are also analyzed in Phase One. These data corresponded to Research Question Two.

For the Phase Two qualitative written data and Phase Three interview data, I analyzed principals' and teachers' responses linked to principal social intelligence

behavior and teacher improvement. The principal data corresponded to Research Question One, and the teacher data corresponded to Research Question Two. For the Phase Four analysis, I examined four individual schools where principals surveyed their faculty connected to their social intelligence behavior and teacher improvement. Phase Four only corresponds to Research Question Three.

Phase One: Quantitative Survey

The quantitative portion of the data analysis examined similarities and differences amongst the descriptive variables of the principals and teachers. The variables were a combination of nominal and ordinal levels of measurements. Salkind (2011) defined nominal as "the characteristics of an outcome that fit into one and only one class or category" and ordinal as " the characteristic of things being measured here is that they are in order" (p. 104). For this study nominal variables included school setting, level, gender, age ranges, experiences and education levels; and ordinal levels of measurement included the level of familiarity with social intelligence and the value of continuous improvement. After analyzing emergent data, I chose the t-test, chi-square and bivariate correlation tests (Salkind, 2011) to statistically analyze Phase One data.

Based on the unpredicted close number of participating male and female principals, 18 and 16 respectively, I sought to analyze possible differences between the means of male and female principals' descriptive data with a two tailed independent means t-test. Salkind (2011) defined an independent means t-test as "the two groups were not related in anyway. Each participant was in the study was only tested once" (p. 190), and a two-tailed test as "there is no direction to the research hypotheses" (p. 195) that applied to the principal descriptive data for this study.

In addition, I hypothesized that principals' educational degrees, years at current school, social intelligence, and continuous improvement self-ratings might be statistically significant. The chi-square test compared the preceding observed data with chance outcomes. To test the research hypothesis that statistical significance existed between the principals' education degree, and how they reported their social intelligence, I used the bivariate correlation test to analyze the relationship between the two variables.

Similar to the principals' data, I used the chi-square and bivariate correlation tests to statistically analyze the descriptive data of the 47 participating teachers to test the research hypotheses that statistical significances existed amongst certain variables. The chi-square analysis compared teachers' time with their current principal, value of continuous improvement, and how they perceive their principals' behavior in assisting them to improve with chance outcomes. I used the bivariate correlation test to analyze the relationship between the years teachers worked with their current principal, and how they viewed their principals' social intelligence behavior to assist them to improve. Unlike the principals, the survey did not garner data to warrant a t-test to examine gender differences. Females dominate the teaching field, which aligns with the study data that female teachers participated the most at 83% (39/47).

The statistical tests previously explained either accepted or rejected the null hypotheses. According to Salkind (2011),"the null hypothesis acts as both a starting point and a benchmark against which the actual outcomes of the study can be measured . . . and the null hypothesis acts as a starting point because it is the state of affairs that is accepted as true in the absence of any other information" (pp. 129-130). For this study the null hypothesis highlighted that without any other information about how the social

intelligence of principals linked to the continuous improvement of teachers, there would be no statistical significance amongst the variables; however, I hypothesized that there is a relationship between the social intelligence of principals and the continuous improvement of teachers, which framed the guiding research questions. The mixed methods sequential explanatory approach structured the research phases to use qualitative measures after the quantitative phase to examine in-depth the qualitative data as explained in the next section.

Phases Two and Three: Qualitative Survey and Interviews

I used the electronic analysis tools, SurveyMonkey (2013) and HyperRESEARCH ("HyperRESEARCH," 2013) to analyze the data in Phases Two and Three respectively for both principals and teachers. I coded the written data from the Phase Two survey with SurveyMonkey (2013), and transcribed and coded the Phase Three interview data with HyperRESEARCH (2013). By using codes aligned to the seven qualities of social intelligence and subcomponents of social intelligence (as defined by Boyatzis & Goleman, 2008) for both phases, I tracked emerging trends, and reoccurring themes that corresponded to Research Questions One and Two. I abbreviated the codes in the following manner: body language+, body language -, developing others +, developing others-, empathy +, empathy -, influence +, influence -, inspiration +, inspiration -, listening +, listening -, teamwork +, teamwork-, trust +, trust -visibility +, visibility -, voice tone +, voice tone-, continuous improvement +, continuous improvement -, collaboration +, collaboration -, feedback +, feedback -, and outlier comments.

Phase Four: **Individual School Data Analysis**

In Phase Four the data analysis for each school began by examining the teachers' perceptions of each principals' seven qualities of social intelligence and three subcomponents of social intelligence (as defined by Boyatzis & Goleman, 2008). Survey Monkey (2013) was then used to analyze the teachers' qualitative written text analysis with codes aligned to Boyatzis' and Goleman's (2008) definitions. Due to anonymity, no teachers were interviewed. Interview data acted as the dominating qualitative measure for each principal's analysis, and no additional quantitative data analysis occurred. I used HyperRESEARCH (2013) to analyze the principals' interview data. From these data I categorized trends and themes specific to each principal with codes. By comparing the principal data to the teacher data, Phase Four corresponded exclusively to Research Question Three.

In Chapter Four tables and charts display the data accompanied by written interpretations of how the data informed the ways the social intelligence of principals' links to the continuous improvement of teachers. Despite the safeguards I employed to reduce bias during the analysis, bias exists in these data interpretations. Potential bias is explained in the next section.

Trustworthiness of the Study

I am a principal and former teacher with preconceived ideas towards teacher improvement and principal behavior. My prior experiences presented a possible bias that might have jeopardized the dependability of the study. I limited comments to avoid presenting bias, but in an effort to build relationships for interactive conversations, the interview process risked the dependability of the data. In order to build relationships, ethical concerns of anonymity were discussed intermittently throughout the interviews to

insure confidence with participants. Moreover, both teachers and principals responded to questions throughout the study based on their beliefs and experiences. Regardless of my efforts to ascertain clear understanding of responses during each phase of the study, I expected some ambiguity, which possibly impacted the study.

During the data analysis phase, I asked colleagues to code the data in an effort to acquire inter-rater reliability. The independent raters examined data separately and individually to determine agreement. The raters agreed with my coding.

I also predicted some bias with the Lesley University student volunteers due to our relationship and their involvement in the initial design of the study. It was also understood that some bias was expected in the scenario where teachers and principals in the same school participated. Regardless of the safeguards I employed to insure anonymity, participants did not know me; therefore, they might have responded in a guarded fashion. The possible bias combined with the mixed methods research design limited the study outcome as described in the next section.

Limitations and Delimitations

The disadvantages of the mixed methods approach outlined by both Creswell (2009) and Denscombe (2008) were considered prior to the onset of the study. The mixed method strategy demands a broader and deeper knowledge of both quantitative and qualitative measures, which might increase the time spent and the cost of a research project. The QUAL/QUAN distinction tends to oversimplify the complexity of the research. This oversimplification might lead to misunderstandings that the philosophical pragmatic foundation of mixed methods approach can be a research strategy where limited structure applies (Denscombe, 2012). More specifically, Creswell (2009)

emphasized the length of time that two separate phases of data collection might take in the sequential explanatory strategy that was used for this study. It is essential to note that like any research method, the mixed methods approach must adhere to the developed guidelines in order for dependable data collection (Huck, 2008).

By design, the recruited participants encompassed Massachusetts' K-12 -levels of public school educators but excluded private and parochial schools. A random selection process solicited principals and teachers except for the pre-determined cohort members and colleagues who committed to the full study prior to the initial quantitative questionnaire. In an effort to grasp a diverse sampling, a minimum of one principal from each county was randomly contacted. Due to time constraints, it was not possible to duplicate this effort with the teacher participants limiting the attempt to expand and diversify the teacher sampling.

Time and resources also capped the number of teacher and principal interview subjects to no more than ten; this cap limited the range and depth of data collected. In Phase One and Two I honored the anonymity of participants that prevented follow up questions to extrapolate deeper meanings from individual responses. Also, the anonymity of the teachers in Phase Four limited the depth of the data attainable to examine Research Question 3, which attempted to determine the similarities and differences between teachers' and principals' perceptions.

Chapter Summary

In summary, this chapter provided a rationale for the mixed method research design and described the specific methodology employed. In addition, the chapter incorporated my worldview with the study lending credence to the mixed method

approach; and included explanations of the selection process of participants, data collection, data analysis, trustworthiness and delimitations.

The mixed method strategy structured the research to examine the problem of how the social intelligence of principals links to the continuous improvement of teachers. The data collected between the two distinct methods revealed multiple perspectives that further explored the relationship between the social intelligence of principals and teacher improvement. For the interviews in Phase Three of the research, the interview questions intended to gain clarity and a deeper understanding of participants' answers from their the open-ended questions in Phase Two. A similar approach was used to develop the research tool for Phase Four of the study, whereby I collaboratively designed the survey tool with the principals from individual schools.

The mixed method research approach provided a framework to also determine which data source would be viewed as the most important. Since the qualitative methods allowed for written open-ended questions and follow up discussion, I chose the interview phase data as dominating factors to examine Research Questions One and Two, and the combined written and interview data for Research Question Three.

The following three research questions guided the study:

1. What are the ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?

2. How do teachers view their principals' social intelligences in promoting or hindering their continuous improvement?

3. What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

I created each question based on the hypothesis that certain behaviors of principals impact how teachers respond to continuously improving their instruction.

By using the mixed methods strategy, I intended to bring forth a broader claim to knowledge from a multitude of perspectives to examine the three research questions. The culminating data shaped further research to better understand how the social intelligence of principals links to the continuous improvement of teachers. The data analysis is presented in Chapter Four.

CHAPTER 4: ANALYSIS OF RESULTS

Introduction

This study examined the components of social intelligence that principals use to help teachers to continuously improve. More specifically, the study brought forth data to help principals, teachers, policy makers and higher education faculty better understand how principals' social intelligence capacity impacts teachers to continuously improve their instruction. I identified the problem that many principals do not consider, or use, social intelligence to the degree necessary to assist teachers to improve**.**

The major goal of this chapter is to present findings gleaned from the data within the sequential explanatory strategy mixed methods approach. After the introduction, the chapter is organized according to the following headings: (a) Principal Data Analysis: Research Question One, (b) Teacher Data Analysis: Research Question Two, (c) Individual School Data Analysis: Research Question Three, and (d) Summary of Key Findings. The chapter organization mirrors the sequential explanatory mixed methods research approach with quantitative data analysis presented first followed by the qualitative data analysis.

In review, the "sequential explanatory strategy in mixed methods research is characterized by the collection and analysis of quantitative data in a first phase followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results" (Creswell, 2009, p. 211). Three questions guided the research:

1. What are ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?

2. How do teachers view their principals' social intelligences in promoting or hindering their continuous improvement?
3. What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

For Research Question One, I anticipated unveiling different ways that principals perceived themselves applying elements of social intelligence to leadership specific to teachers' continuous improvement. Then, from Research Question Two, I intended to bring forth honest opinions from teachers about their principals' social intelligence behavior directly linked to helping them improve their instruction. Research Question Three connected to four schools where principals volunteered to survey their own teachers. I expected to reveal how teachers' and principals' perspectives differed on the impact of principal behavior and teacher improvement. Before the analysis is explained, social intelligence and continuous improvement are defined in the context of the study.

Definitions

Social Intelligence. Social intelligence is organized in two categories: social awareness and social facility (as defined by Goleman, 2006). Social awareness is what we sense about others and social facility is what we do with that awareness. In the context of the principal/teacher relationship, social awareness and facility are the behaviors exhibited by the principal towards teachers. More specifically,

> the ability to sense nonverbal emotional signals, listening with full receptivity, understanding another persons thoughts, feelings and intentions, and knowing how the social world works; and interacting smoothly at the nonverbal level, presenting ourselves effectively, shaping the outcome of social interactions and caring about others' needs and acting accordingly (p. 84).

Teacher Continuous Improvement. Continuous improvement is defined as a cyclical process with recurring stages that often overlap with specific measurement indicators utilized (Duffy, 2003; Kegan & Wagner, 2006). In the context of American classrooms, continuous improvement is viewed as teachers striving to improve their instruction based on the learning needs of their students; with indicators of success stemming from student achievement results, such as assessments and classroom work samples. The key concept explored in this study was continuous improvement, which means teachers who prioritize instructional improvement above anything else, rather than sporadic, disconnected changes.

The following section begins the analysis with the principals' data from Phases One, Two and Three of the study that correspond to Research Question One. I chose specific data to present in simple descriptive frequency counts and percentages, cross bar graphs and levels of statistical significance. The qualitative written text from Phase Two follows, and the Phase Three interview data concludes the principal data analysis.

Principal Data Analysis: Research Question One

Quantitative Principal Data Analysis

The Phase One quantitative data described the principals' demographic backgrounds, school experience, and educational degrees. In addition, these data showed how principals reported familiarity with the concept of social intelligence, and the degree they reported that they exhibit behavior that assists teachers to continuously improve. Phase One sought to solicit a larger sample of participants across Massachusetts to render descriptive data about principals interested in the topic. The following text and figures present data that corresponded with Research Question One.

In general, these data showed the most dominant characteristics of principals independent of each other were (1) suburban districts, (2) elementary level, (3) 4-10 years range of experience in current school, (4) male, (5) 41-50 age range, (6) Master's degree, and (7) 6-10 years teaching experience (see Appendix E).

The gender breakdown of participating principals emerged as an unanticipated outcome. Out of the 34 participating principals, 18 males and 16 females volunteered for the study as seen in Table 4.1.

Table 4.1

Gender

5. Please indicate gender below.		
Answer Options	Response Percent	Response Count
male	52.9%	18
female	47.1%	16
answered question		34
skipped question		3

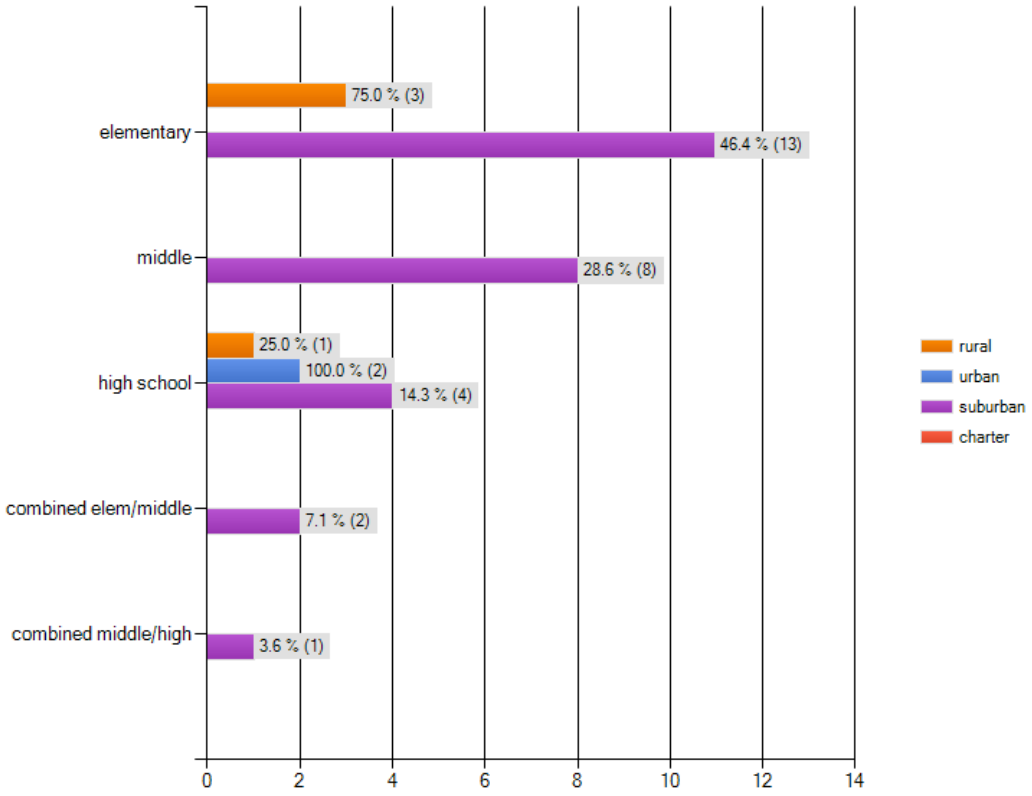
Based on the gender data, I hypothesized that a statistical significance existed between two variables from the survey: the ways male and female principal participants reported their understanding of social intelligence, and the degree they reported they exhibit behavior that assists teachers to continuously improve. I used the t-test to calculate the mean scores of the two variables. The null hypothesis challenged the research hypothesis by stating that no statistical difference existed between the means of two groups (male and female) other than chance. $p > .05$ defined the criterion to reject the null hypotheses, but the obtained value calculated social intelligence as $p = .402$ and continuous improvement as $p = .414$ that indicated a statistical significance existed

between how males and females self-reported for social intelligence and continuous improvement.

The urban school participation rate also emerged as an unanticipated outcome. The following figure titled *Principals District Type and School Level Comparison* (see figure 4.1) shows a low participation rate from the urban districts with representation at the high school level only. In the data collection phase, I noted the urban districts instituted higher levels of email security that might have impacted the urban district principals' response rate. Elementary suburban principals participated at the highest frequency followed by suburban middle school principals. I work in a suburban middle school district. District proximity might have attributed to a greater amount of participation from suburban districts at both the middle and elementary levels.

Figure 4.1

District Type and School Level Comparison



Tables 4.2 and 4.3 show the participant breakdown of the educational backgrounds based on current degree levels, and how principals self reported their familiarity with social intelligence, respectively. My relationship with Lesley University students, who volunteered for the study, might have contributed to a higher percentage of participants working towards doctoral degrees.

Table 4.2

Educational Degree

7. What is the highest degree you have received or are working on?		
Answer Options	Response Percent	Response Count
Masters	35.3%	12
Working on CAGS	2.9%	1
CAGS	23.5%	8
Working on Doctorate	23.5%	8
Doctorate	14.7%	5
answered question		34
skipped question		3

A large majority of principals reported a familiarity with social intelligence in the moderate to high ranges combined at 94.1% (32/34) as shown in Table 4.3

Table 4.3

Social Intelligence

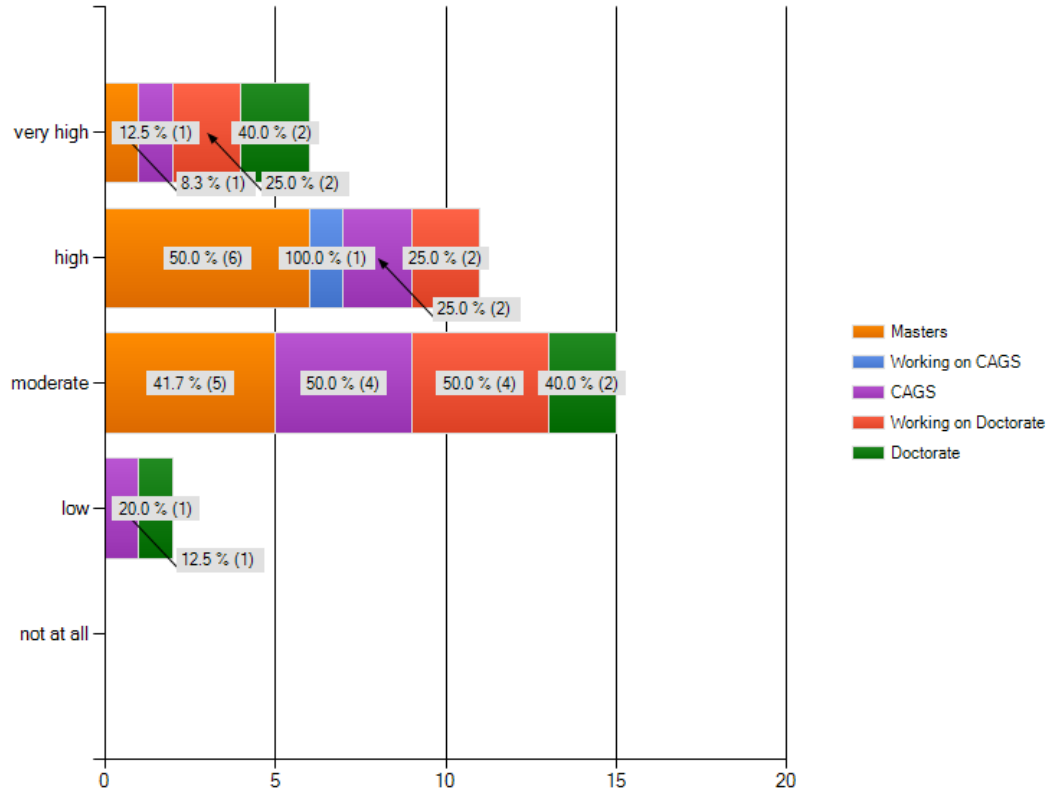
9. Based on the definition of social intelligence included in this survey, how familiar are you with the concept? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	17.6%	6
high	32.4%	11
moderate	44.1%	15
low	5.9%	2
not at all	0.0%	0
answered question		34

skipped question	3

I hypothesized that principals with higher educational degrees might be more familiar with social intelligence. Figure 4.2 shows a crossbar graph comparison between the two variables.

Figure 4.2

Familiarity With Social Intelligence and Educational Degree



Based on the crossbar comparison, I analyzed the statistical significance between the principals' education degrees and how they reported their familiarity with social intelligence with a bivariate correlation test. The null hypothesis stated that no relationship existed between the two variables. $p > .05$ defined the criterion to reject the

null hypotheses, but the obtained value calculated as p=.929 that indicated a statistical significance existed between educational levels and principals' familiarity with social intelligence.

I also hypothesized that the length of time principals spend in their schools connected to their behavior assisting teachers to improve. As shown in Table 4.4, a large majority of principals reported they exhibit behavior to assist teachers to continuously improve in the moderate to high ranges of social intelligence combined at 97.0% (33/34).

Table 4.4

Continuous Improvement

10. Based on the definitions of social intelligence and continuous improvement included in this survey, what degree do you feel you exhibit behavior that assists your teachers to continuously improve? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	8.8%	3
high	50.0%	17
moderate	38.2%	13
low	2.9%	1
not at all	0.0%	0
answered question		34
skipped question		3

Table 4.5 shows a majority of principals have worked in their current schools in the 4-10 year range. The crossbar comparison graph titled, *Years as Principal in Current School and Behavior to Assist Teachers to Improve* (see figure 4.3) shows 73.3 % (11/34) principals reported high to very high degrees of behavior to assist teachers to improve in the 4-10 year range. Fifty-eight and three percent (7/34) principals reported high to very high degrees of behavior to assist teachers to improve in the up to three year range.

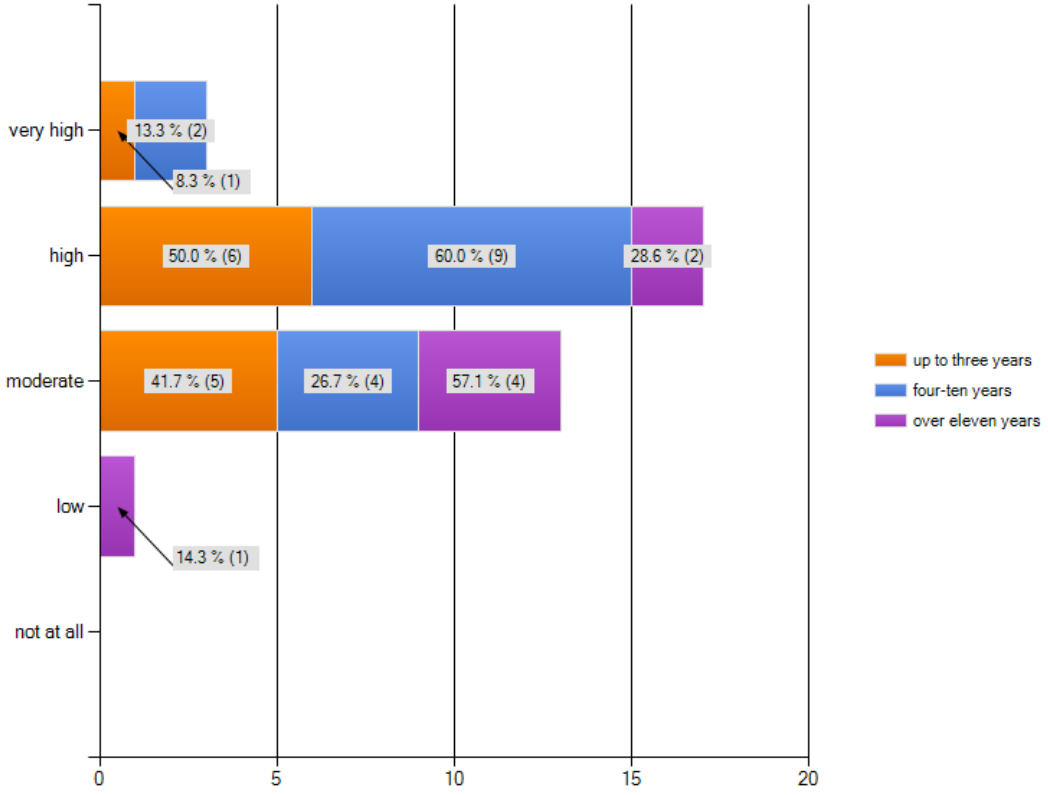
Table 4.5

Years as Principal in Current School

4. What best describes your years at experience at your current school in the principal role?		
Answer Options	Response Percent	Response Count
up to three years	35.3%	12
four-ten years	44.1%	15
over eleven years	20.6%	7
answered question		34
skipped question		3

Figure 4.3

Years as Principal in Current School and Behavior to Assist Teachers to Improve



I then hypothesized that a statistical significance existed amongst principals' educational degrees, years at current school, principals' familiarity with social intelligence, and the degree principals exhibit behavior related to social intelligence to

assist their teachers to improve. I used the chi-square test to compare the four variables with the chance that these data outcome distributed equally amongst the variables.

The null hypothesis stated that the responses distributed equally across the four categories. $p < .05$ indicated a less than 5% probability that the frequency of how principals self- rated their familiarity with social intelligence, continuous improvement, years at current school and educational degree distributed equally across all categories by chance alone. The exact level of significance for each variable calculated as follows: social intelligence .010, continuous improvement .000, educational degree .044, years at current school .139. The calculation accepted the research hypothesis rather than the null that indicated other factors impacted the observed frequency data of the principals.

From the 34 principals who participated in Phase One of the survey, 13 submitted their responses for completion and 21 continued to write responses for Phase Two. The ensuing section begins the qualitative analysis of the study.

Qualitative Principal Data Analysis

The written text and interview data from Phases Two and Three probed deeper into the ways principals reported they use social intelligence to assist teachers to continuously improve (Research Question One). The section is organized by: (a) Phase Two written responses, (b) Phase Three interviews, and (c) Research Question One categories of key findings.

Phase Two Written Responses. Twenty-one principals continued to Phase Two of the survey by writing responses to the ways they use social intelligence to help teachers to continuously improve in the context of the elements of social intelligence (as defined by Boyatzis & Goleman, 2008). The principals shaped their answers within the

following categories: empathy, listening, organizational awareness, influence, developing others, inspiration, and teamwork (see Appendices A and C). In addition, principals responded to more specific elements of social intelligence: (a) body language, (b) voice tone, and (c) word choice, also defined by Boyatzis and Goleman (2008).

Principals referenced empathy as the most prevalent behavior to assist their teachers to improve; however, how they interpreted empathy included both professional and personal perspectives as represented by these two principals in the following responses:

> I'm empathetic. I understand the challenges of being a young mother attempting to balance a teaching career with the demands of a family; or a young educator forced to hold a second job to help make financial ends meet; or the educator attempting to care for a sick or elderly parent. This enables faculty to share their challenges with me.

> Empathy: When teachers come to me with a problem, I try to put myself in their shoes and solve the problem with them in order to improve their practice.

Many of the principals referenced active listening as a way to show empathy as captured by these principals:

> The message that I give my teachers is that “we are all in this together”. If there are ways that I think we could improve student achievement, I am willing to sit and discuss those ideas. I use empathy and listening because I have just left the classroom, so they know that I understand their concerns and obstacles.

> I try to remember the classroom and the challenges teachers face. I understand the importance of listening actively to attempt to glean what teachers need.

> I think or at least I try to be an active listener and be empathetic to my teachers.

Listening linked to cultivating trust as this principal captured the thoughts of many:

> Trust is something that takes time to develop. Again, nonjudgmental listening and following through with ideas and promises of assistance. Providing a clear and understood reason for an action or a change or directive. Supporting staff "under

> fire" as much as possible in public, even if privately there needs to be more of an action plan provided.

Principals also connected modeling and risk-taking to continuous improvement as these principals described:

> I listen to their ideas and encourage them to try new ideas.

> I support teachers by encouraging them to take risks. I encourage the use of technology and I model this at faculty meetings. I try to work with PLC groups to support them and work with them to develop SMART goals. I am visible in the school and if I try new initiatives, I am also included in the planning and the implementation.

> I try to influence others by modeling and giving rationale for anything I ask teachers to do.

Many of the principals either implied or directly wrote the importance of an "open door policy" similar to this principal:

> I have an open door policy that I hope invites teachers to know that I am always available to listen.

Inspiration was referenced by only these two principals in the following context:

> Good leaders help their people set goals. Great leaders inspire their people to achieve them. This is one of my favorite mantras. I encourage, support and celebrate the goals my team(s) member(s) set.

> I try to send out inspirational emails either to the whole staff or individuals depending on need. Teamwork is very important here.

School culture emerged through the lens of teamwork and problem solving as indicated by these principals:

> Patience, tolerance, empathy, and understanding of teachers' needs are all things I model for teachers. I also try to create a culture that we are all learning together that we don't need to know all the answers but can work to problem solve together.

> I think my faculty views me as a team player who supports them when they need

> it in a variety of situations. This in turn contributes to a general culture of teamwork within the school.

Most of the principals wrote they understood body language as important but reported in varied ways:

> I am very aware that often my body language, particularly my facial expressions, do not show what I am truly feeling. For example I often look upset or angry when I am simply concentrating on a problem or intently listening.

> I am sometimes impatient and somewhat intolerant of certain attitudes and sometimes this is apparent to people. This can get in the way of greater progress. I work on it.

> Body language can be misconceived or can give away what one is truly thinking, so as a leader, one has to make sure that what I want communicated gets communicated in the best way possible, so I have to be very wary of my body language. The message has to consistent, and my body language has to be consistent with my message.

> This is probably an area for growth. I do not hide my feelings well. If I am not happy with something, it is clear. This can be intimidating for staff.

> I never thought of body language as I've had interactions with teachers. Although I do portray a positive attitude with facial expressions and my door is always open. When I visit classrooms, I walk around and interact with students rather than stand stiff at the back of the room and look judgmental.

Principals also reported various ways about voice tone as represented by these principals:

> My voice is naturally a soft tone. I rarely raise my voice. This allows teachers to feel comfortable in my presence. Sometimes I think my voice tone impacts my ability to appear direct when needed.

> This is an area I specifically concentrate on. I try to be conscious not to allow a "lecturing" tone enter my voice. This is most likely to occur when I'm frustrated because someone hasn't embraced an expectation or grasped a concept that has been previously presented (often many times). I've learned to read people's faces and recognize that it just causes people to shut down. There is simply no room for a judgmental tone or allowing your frustration to creep into your voice. I try hard to not permit myself this luxury.

> I'm careful about what I say, but I tell the truth about what's going on in our school at any moment with staff. My tone of voice matches how I'm feeling at that time. If I notice someone else's stress, I raise that tone to pep them up. I have to have a clear tone in different situations that relate to logistics and student behavior. I comment on teacher's tone in my walkthrough feedback forms to stress the importance in student engagement.

> I work hard on controlling my volume and rate of speech, but when I am not on top of it, I can appear overly excited or rushing.

> I always try to remain calm and in control. I try to always model how I want my teachers and staff to respond when under pressure or stress.

Principals understood the impact of their word choices as noted by these principals:

> A few key phrases: I understand. We do what is best for children. How would you change that? What can I do to support you? How did that work for you? It is ok to fail, it is important to try.

> I try to use words that my audience can understand and process.

> I try to find and use vocabulary and statements that relate directly to student learning.

This principal stood alone with an honest response for growth and alluded to the importance of teamwork through the principal's behavior:

> I use " I " to often instead of "we" or "our: I believe this hinders my leadership ability.

The Phase Two written responses offered various ways that principals use social intelligence to assist teachers to continuously improve. After Phase Two, 14 out of the 21 principals then interviewed in Phase Three. Due to time constraints and the availability of the participants, I interviewed nine principals and used participants'

written Phase Two answers to develop probing questions for each interview. All interviews followed a similar structure (see Appendix C).

Phase Three Interviews. Nine principals participated in Phase Three to discuss the ways that they use social intelligence to assist teachers to continuously improve. The first area of interest emerged amongst four of the nine principals who reported the same way in two categories: how they prioritized teachers' continuous improvement, and how they viewed their behavior connected to teacher improvement (see Appendix A). Two principals rated themselves very high for both categories, and two placed themselves in the moderate ranges for both categories.

The two principals, who self-reported very high ratings for their own behavior and value levels for prioritizing continuous improvement, revealed commonalities in their answers. Modeling expectations, empathy and active listening emerged as the most prevalent. Both principals reported a high level of understanding of the impact of body language.

For example, one principal stated specifically that "looking into their eyes, listening with attentive interest, and knowing your audience as you answer their questions" as important aspects of body language. The other principal answered more generally with "being present at all times without multitasking" as important. Active listening and empathy threaded throughout their responses emerging specifically in the context of prioritizing two -way conversations where elements of change surfaced.

Both principals exhibited a high regard for establishing and communicating a clear purpose and rationale behind identified areas of improvement. Assessment data and face time interactions emerged as effective vehicles for communication. The two

principals perceived their social intelligence behavior as the catalyst to build trust with teachers. Both principals referred to face time interactive discussion, empathy, and establishing a clear purpose as ways to cultivate trust to higher levels.

Unlike the preceding principals who reported very high in both their behavior and value level for prioritizing continuous improvement, the next two principals reported as moderate in both categories of the survey. Similar to the other two principals, these two principals reported empathy and listening as their strongest qualities as stated by one as "we, as administrators, deal a lot with what are emotional landmines. Actually listening to people, trying to understand what is not being said" captures how both principals responded. However, the data differed with modeling. The principals who reported in the moderate ranges did not mention modeling as a leadership component.

The principals who reported in the moderate ranges stated high administrative turnover in both of their schools linked to negatively impacting school culture and trust. One principal noted, "There is an extreme difference between me and the previous principal as being a micromanager. For example, he would write daily detailed emails on what went on during each day." This principal explained his goal to be an instructional leader instead of a manager, but realizes that the school needs to shift to a culture of learning. He aspires to influence and inspire teachers to recognize and prioritize school culture.

Cultivating trust with teachers stood out as challenging in both schools, and the principals described their schools as traditional. Elements of the change process connected to trust threaded through many of the two principals' responses, which linked to ways principals' social intelligence can strengthen trust between principals and

teachers. One principal stated with sense of sadness, "Over time I'll build trust, but administration is a difficult job and we're only as good as our last decision." The data suggested that traditional school cultures might bring greater challenge to building trust when instituting change to improve instruction.

Personal reflection about their leadership growth surfaced as a common theme. Specifically, both principals spoke intensely about their difficulties with controlling emotions. Social intelligence surfaced through discussion of body language. Particularly, frustration manifested through their body language that may send unintended subliminal messages to their teachers. The principals' emotions might have impacted the teachers' trust towards them and their willingness to improve. The two principals who reported in the moderate ranges pointed out the slow progress towards improvement in their schools.

In addition to the comparisons and distinctions made amongst the four principals, I garnered data from the other five principals that corresponded with the importance of empathy based on Boyatzis' and Goleman's (2008) research. The authors' research unveiled that empathy interlaced with attentive listening and awareness to others' moods emerged as the common qualities of social intelligence amongst effective leaders. I excluded the research on empathy from the surveys and interviews to avoid influencing participants' responses.

I used the seven categories of social intelligence (as defined by Boyatzis & Goleman, 2008) to frame the interview sessions: (1) empathy, (2) attunement, (3) organizational awareness, (4) influence, (5) developing others, (6) inspiration, and (7) teamwork. For clarity in the surveys, I replaced attunement with listening based on preliminary feedback from colleagues.

Based on the notion that effective leadership requires empathy, Tables 4.6 and 4.7 display how principals reported their strengths and growth areas within the seven categories of social intelligence related to empathy. Some principals reported multiple areas of strengths and growth areas.

Principals who reported empathy as a strength revealed the following shared actions: (a) active listening, (b) face time interactions with teachers, (c) collaborative decision-making, and (d) a high awareness of the daily demands on their teachers.

Table 4.6

Number of Principals Reported Strengths in each Category

Developing Others	Empathy	Influence	Inspiration	Listening	Organizational Awareness	Team-work
3	4	0	2	4	3	2

Principals who reported empathy as a growth area revealed the following shared actions: (a) high expectations, (b) a sense of urgency if improvements are for the good of the school, (c) a lower tolerance for peoples' feelings, and (d) a higher awareness of distraction manifesting through body language with negative results.

Table 4.7

Number of Principals Reported Growth Areas in each Category

Developing Others	Empathy	Influence	Inspiration	Listening	Organizational Awareness	Team-work
1	5	1	1	1	3	0

These data suggested that empathetic principals (Table 4.6) prioritize their time to focus on interaction with their teachers that then impacts continuous improvement. Principals who reported empathy as a growth area (Table 4.7) might work in schools or districts that do not allow principals to make time to interact with their teachers in authentic ways. For example, principals referenced external factors that prevent them from prioritizing instruction. Even though principals understood the importance of social intelligence and its link to teacher improvement, external factors repeatedly surfaced as negatively impacting principals' abilities to strengthen their leadership with conscious use of social intelligence. In addition to empathy, five other themes emerged from the interview data.

Themes. By delving deeper into the interview data, I identified emerging themes based on reoccurring implications from the nine principals: (a) school culture, (b) prioritization, (c) external factors, (d) purposeful visibility, and (e) reflective learners. Collectively, principals identified school culture as the most prevalent factor influencing teachers' continuous improvement.

School Culture. All nine principals highlighted school culture as influencing teachers' willingness to continuously improve. The principals connected their social intelligence behavior to principal leadership and a school culture of improvement. Two principals from high performing schools indicated that their teachers did not see any reason to change to improve. The high performing status bred complacency leading to teacher resistance. One principal shared, "part of it is teacher perception in a high performing district. . . . The problem then becomes how do we get the people to see there is a need for improvement?" These principals' comments brought forth a plausible

assumption that when data shows high achieving students, teachers perceive the data as indicators of success; therefore, they should not change to improve their instruction.

One principal noted, "We are faced with our drive for state testing and accountability, . . . these are young children who have the right to develop at their own rate," suggesting that high performance ratings are not indicators to determine success with the individual child. In other words, a good school score doesn't mean the needs of the whole child are met for all children.

In addition, principals reported that vocal teachers' resistance to change negatively impacted school climates that formed fragmented, untrusting school cultures over time. "The myth of the shared vision is paramount in my school because of a few uncooperative teachers," stated a principal, meaning that some of the teachers in his school say they are on board with improvement, yet sabotage the change process. Other principals concurred with concerns about teachers' authenticity towards improvement. Principals associated cultivating school climates into cultures of continuous improvement with their abilities to prioritize teacher improvement.

Prioritization. Prioritizing instructional improvement emerged as challenging from all nine principals. Recognizing the importance of a relentless focus surfaced, and all but one principal reported difficulties with implementing a determined focus. The principal who found success with tangible continuous improvement mentioned the initiative to improve reading instruction repeatedly. He realized that "when you prioritize everything, nothing is prioritized," suggesting that if teachers don't understand what to improve, then how do they know what to do.

Many of the principals meshed time management challenges into their responses. Feelings of too many things to do surfaced within the context of prioritization. For example, one principal stated, " I just need to put the list down and take time to actively listen to my teachers. . . to help them improve." This principal highlighted how taking one element of social intelligence, such as listening, might impact teacher improvement. Another principal commented that, " I know what I should prioritize, but I don't know how to prioritize what not to do in the reality of the day." Lack of time and prioritization also blended into external factors impacting principals' influence on teachers' continuous improvement.

*External Factors***.** As previously noted, time and the daily reality of a school impacted principals' abilities to prioritize instructional improvement. One principal captured many of the others' thoughts:

> Being present at all times without multitasking is important. I smile often, dress professionally, exhibit enthusiasm with a sense of calmness. I hinder it when I allow external factors to impact my school, and it shows in my demeanor.

Unrealistic demands from central office and budget shortfalls emerged as obstacles from many of the principals as this principal emphasized, "how can I work on improving instruction when we are overcrowded, teachers don't have enough desks and some are teaching out of storage rooms. . . .They blame me." Navigating through the external factors in order to manage them is a challenge, yet necessary in order for principals to prioritize instructional improvement.

Other principals categorized their own behaviors as external factors. One principal said, "I need to make a shift now and know my teachers as well as my students. It is really hard." Another principal referenced the change process with, "I moved too fast.

Even though I did an entry plan and did all the things that people said they wanted, I should have moved slower." The previous responses implied that principals perceive obstacles to their work in many forms. The inability to model desired behaviors surfaced as a possible obstacle for some principals as explained in the next part.

Purposeful Visibility. All principals mentioned modeling desired teacher behaviors, but when I probed more deeply, the principals meant visibility with a clear purpose. They equated visibility to face-to-face involvement with teachers by being in classrooms, participating in discussions and attending collaboration meetings. All concurred that the more they interacted with teachers at opportune times, the more teachers changed incrementally for improvement. Prioritizing visibility with a succinct purpose surfaced connected to the principals' reflections on ways to embellish their leadership styles by cultivating social intelligence.

Reflective learners. Personal reflection to improve their leadership also stood out as a common theme for all the principals. None of the principals hesitated to identify where they could improve in areas of social intelligence. Blame or excuses to self- improve did not emerge even in the context of external factors. The honesty in regards to self-improvement was unexpected but implied that principals interested in the topic might have grown to be reflective learners. One principal captured the feelings of the others with, "A lot of people just lead from their office. If we don't leave our desks the school is going to run and teachers will teach. Real leadership is about social intelligence."

Research Question One Categories of Key Findings

I garnered two categories of key findings linked to the ways principals report they are using social intelligence to help teachers to continuously improve instructional

practice (Research Question One). The categories of key findings related to *Educational Leadership Behavior* and *School Culture* are subsequently explained.

Educational Leadership Behavior. Most principals reported an understanding of social intelligence and believe they exhibit behavior related to social intelligence that cultivates continuous improvement with teachers. Principals and teachers emphasized a high need for principals to understand social intelligence to strengthen leadership skills to influence teachers to continuously improve, particularly in the areas of empathy and listening. A majority of teachers responded that they value continuous improvement and indicated their principals' social intelligence behavior impacts their ability to continuously improve.

School Culture. Both teachers and principals referenced school culture as a major factor for continuous improvement. Teachers indicated that trusting their principals was essential to continuous improvement. Without trust in their principals, teachers hesitated to try new techniques necessary to learn better ways to teach. Lack of trust then rippled into untrustworthy school cultures.

The following section begins the analysis with the teachers' data from Phases One, Two and Three of the study that correspond to Research Question Two: How do teachers view their principals' social intelligences in promoting or hindering their continuous improvement?

Teacher Data Analysis: Research Question Two

The teacher data analysis begins with the presentation of quantitative data. I chose specific data to present in simple descriptive frequency counts and percentages, cross bar

graphs, and levels of statistical significance. The qualitative written text from Phase Two follows, and the qualitative interview data concludes the teacher data analysis.

Quantitative Data Analysis

Similar to the principal descriptive data, the teacher descriptive data explained the demographic backgrounds of teachers interested in the topic of the study. In general, the data showed the most dominant characteristics of teachers independent of each other were (1) suburban districts, (2) middle level, (3) 4-10 years range of experience in current school, (4) 4-10 years range of teaching experience, (5) 4-10 years range working with current principal, and (6) female, and (7) 30-40 age range (see Appendix F).

The range of time teachers worked with their current principal, and how they feel their principal assists them to improve emerged as the first data of interest. Tables 4.8 and 4.9 show the data in response and percent form. The 4-10 year range prevailed as shown in Table 4.8, and a majority of teachers 72.3% (34/47) reported in the moderate to high ranges that their principals assist them to improve as shown in Table 4.9.

Table 4.8

Time with Current Principal

6. What best describes the range of time that you have you worked with your current principal?		
Answer Options	Response Percent	Response Count
up to 1 year	14.9%	7
1-3 years	25.5%	12
4-10 years	53.2%	25
over 11 years	6.4%	3
answered question		47
skipped question		2

Table 4.9

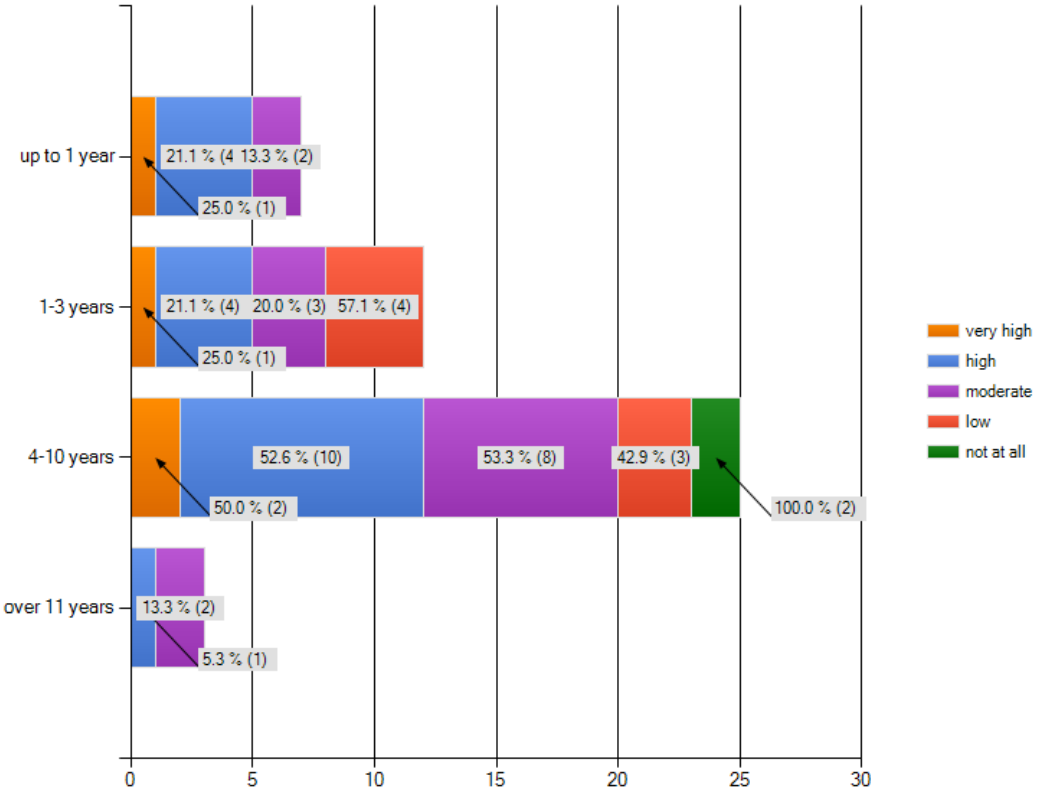
Principal Behavior

12. To what degree do you feel your principal exhibits behavior that assists you to continuously improve based on the definition included in this survey? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	8.5%	4
high	40.4%	19
moderate	31.9%	15
low	14.9%	7
not at all	4.3%	2
	answered question	47
	skipped question	2

Figure 4.4 shows a crossbar comparison of the time spent with principals and how teachers viewed their principals' behavior connected to their improvement.

Figure 4.4

Time With Current Principal and Perception of Principal Behavior



Based on the data in Figure 4.4, I hypothesized that a statistical significance existed between the years teachers worked with their current principal, and how they viewed their principals' social intelligence behavior to assist them to improve. I chose the bivariate correlation test to analyze the level of significance to reject the null hypotheses that stated no relationship existed between the two variables. $p > .05$ defined the criterion to reject the null hypotheses, but the obtained value for the two variables tested calculated as $p = .312$. Therefore, with the bivariate correlation test I found the research hypothesis more acceptable than the null indicating a statistical significance existed between the two variables.

The degree teachers reported that they value continuous improvement emerged as a third variable of interest presented response percent and count in Table 4.10.

Table 4.10

Value Continuous Improvement

11. Based on the definition of continuous improvement included in this survey, to what degree do you value the concept of continuous improvement in teaching? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	42.6%	20
high	44.7%	21
moderate	12.8%	6
low	0.0%	0
not at all	0.0%	0
answered question		47
skipped question		2

Figure 4.5 shows a crossbar graph between how teachers reported their principals' social intelligence behavior and the degree they value continuous improvement.

Figure 4.5

Principal Behavior and Continuous Improvement Value

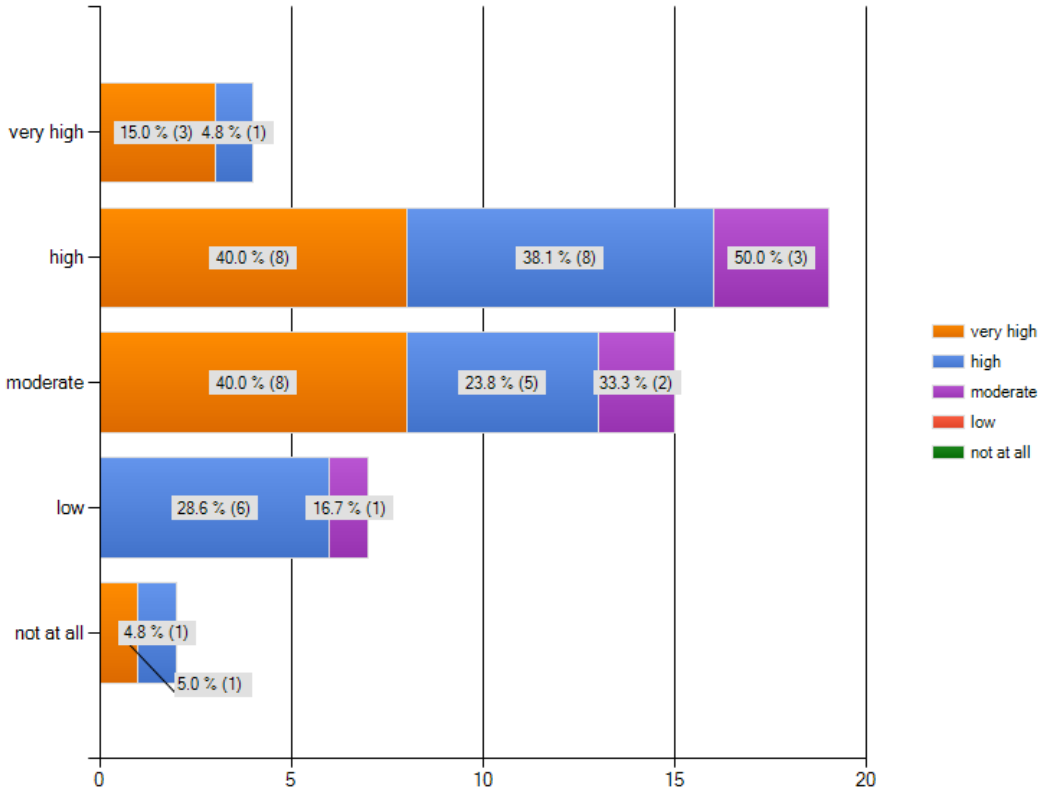


Figure 4.4. The vertical axis shows how teachers reported their principals' social intelligence behavior, and the horizontal axis shows the degree they value continuous improvement.

I then hypothesized that a statistical significance existed amongst the length of time teachers worked with their current principal, the degree they value continuous improvement, and how they perceive their principals' social intelligence behavior to assist them to improve. I chose the chi-square test to compare the observable data with chance outcomes to reject the null hypothesis that stated the responses in the three categories distributed equally. $p < .05$ indicated a less than 5% probability that the

frequency distributed equally across the categories by chance alone. The exact level of significance for each variable calculated as follows: time with principal .000, value continuous improvement .011, teachers' perceptions of principals' social intelligence behavior to assist them to improve .000. With the chi-square test, I found the research hypothesis more acceptable than the null indicating that other factors impacted the observed frequency data of the teachers.

The response rate by district type shown in Table 4.11 surfaced as the final data of interest to present. Similar to the principals, the urban teachers' response rate emerged low that might link to higher levels of email security in urban districts. Also, I work as a middle school principal in a suburban district that might have attracted teachers with similar demographics to the study.

Table 4.11

School District

2. What best describes your School District?		
Answer Options	Response Percent	Response Count
rural	14.9%	7
urban	8.5%	4
suburban	76.6%	36
charter	0.0%	0
	answered question	47
	skipped question	2

Qualitative Teacher Data Analysis

The written text and interview data from Phases Two and Three probed deeper into how teachers view their principals' social intelligences in promoting or hindering their continuous improvement (Research Question Two). The section is organized by (a) Phase Two written responses, (b) Phase Three interviews, and (c) Research Question Two categories of key findings.

Phase Two Written Responses. The first Phase Two data analyzed focused on continuous improvement indirectly linked to principal behavior. I examined variables that affected teachers' perspectives on the importance of continually improving their instruction. Nineteen of twenty teacher rated continuously improving their instruction in the high and very high ranges. Teachers referenced (a) collaboration, (b) formative assessment, (c) culture of learning, (d) research, and (e) teacher personality as ways to improve instruction to increase student learning separate from the influence and behavior of their principals. Assessing student work with colleagues stood out most frequently as the desired way to improve instruction. The following passage written by one teacher captured the points of many:

> Ways that I prioritize the continuous improvement of my own instructional practice and student learning is to implement (try to foster) the following: My ultimate priority is to look collaboratively at student and teacher work (units) with peers. Sharing and assessing student work helps me to discover what my students know and how they learn. Something I would like to do more of the coming months. This also provides me with information on how to improve my individual instruction and implement the common core curriculum.

Within the context of principal behavior, Phase Two of the study revealed empathy, trust, body language and word choice as the ways teachers viewed their principals' social intelligence in promoting or hindering their continuous improvement. These 20 teachers offered varied responses, but empathy and listening surfaced as the most frequently mentioned behaviors linked to improvement. One teacher combined empathy and listening together by describing the principal:

> Empathy: Whenever my principal introduces a new concept or change of school direction, she is very careful to make sure that the comfort zone of all is addressed and answered. Listening: As a faculty, the opportunity to ask questions and receive feedback is given ample attention and follow-up.

Empathy and listening interfaced with comments referencing the importance of trust and culture.

The same 20 teachers also responded in different ways regarding trust in their schools and with their principals. The notion of trust carries many meanings based on the perception of the user. Reina and Reina (as cited in Fink & Hargreaves, 2006) describe trust as "contractual, competence and communication" (p. 213). In brief, contractual trust means to meet predetermined obligations, competency trust equates to trust the competency of others to do their jobs, and communication trust refers to authentic human interaction grounded in honesty.

By design, I used the participants' individual perspective of trust with their principal and school setting. Without defining trust to frame the participants' responses, teacher perceptions of trust varied, however, the importance of trust in a school culture weaved through all of their responses as emphasized by one teacher, "Trust is huge!" Teachers revealed the significance of trust in both negative and positive contexts as indicated in the following responses:

> I initially felt great trust and enjoyed working with this principal. We are a small school community, and he worked hard to build that trust. However, the last two years I have seen a withdrawal, an awkwardness, a lack of empathy which has been noted by other colleagues so I would say his trust has been eroding.

> My principal does work toward cultivating trust within the school and with families. My principal speaks about this a great deal. One thing that interferes with total trust is the principal's difficulty with following through on things, remembering things, being late, etc. (general organizational items).

Teachers linked trust in their principals to taking risks to improve as stated by this teacher:

> I think my principal values trust and strives to be trustworthy. She does

> encourage risk taking by the teachers in trying out new strategies, and I believe most feel free to try new things without fear of reprimand if it does not go as well as hoped.

Teachers also indicated a need for their principals to trust them as one teacher pointed out, "Our principal has an attitude that all things can be achieved. She does trust her staff members immensely," and another teacher expanded this idea:

> Trust and admiration from our principal is expressed to us in nonverbal and verbal ways. Teachers are always continually improving practices and there is a feeling of having the ability to grow and the understanding that my principal has faith and trust in us, because we all have the same goal in helping raise student achievements and understanding.

The impact of mutual trust between principals and teachers also emerged with negative implications as stated by another teacher, "Although the principal says he trusts us, his actions declare the opposite. He is not trusted by the vast majority of the teachers in the building."

School cultures grounded in trust threaded through many of the teachers' responses as indicated by this teacher:

> There is a general feeling of trust in my building from my principal that the teachers want to do what is best for the students. I feel that our building is a very supportive place because of the culture the principal has worked to build.

However, the reality of the school leader interacting with individual teachers to cultivate a school culture of trust might not be possible. To that end, there is a danger of negatively impacting other teachers as described below:

> She also needs to be aware that some of the trust has been affected by her trusting relationships with staff members. While these relationships have created a better working environment, there are always those who fall into jealousy and will then be difficult.

Trust surfaced as an emotional area for teachers, especially if they perceived their

principals as untrustworthy. The responses around trust linked to school culture suggested teachers desire a school culture where mutual trust prevails. Teachers also acknowledged the tacit actions of the principals and body language surfaced significantly as an indicator of leadership.

Most of the teachers indicated an awareness of their principals' body language from both positive and negative perspectives. Teachers connected body language to interactive conversations with their principals, as one teacher stated, "My principal's body language is always warm and inviting. There is always the feeling that situations are approached with the opportunity for listening and discussion." Another teacher described her principal:

> He is a rather large man, but you are not encumbered by the size. His body language is quite open and non-hostile. Welcoming. This promotes trust, compassion, and encouragement without really saying anything.

Teachers reported specific connections to body language and to continuous improvement as stated by this teacher:

> Her body language promotes that she is assured of herself, confident in her words, and easy to approach. Above all - she will keep eye contact and focus her attention on "you" until your conversation is finished. After a conversation with my principal, her "at ease and calm" approach helps me to feel satisfied and confident to continue the direction of instruction, that I have decided to use within my classroom.

Even teachers who reported that their principals showed positive body language, referenced distraction and time constraints shown through body language. One teacher wrote, "When listening to someone, he generally remains focused and assumes a receptive stance with his arms held loosely at the wrists in front of him. At times due to frequent demands, he may appear distracted."

Teachers also wrote how negative body language impacts teachers' confidence and willingness to improve as these teachers claimed:

> The body language of my principal does not always promote continuous improvement. Sometimes when talking to her I feel as though I am wasting her time or she has some thing more important to do.

> She often looks as if she very busy and focused. At times teachers may feel as if they are "bothering" her with questions because her body language reads that way. In reality, she is probably focused on the many things she has to do, but it reads as not open/listening to the teacher who may need assistance in improvement.

> Half listening body language (not much eye contact- continuing to read email while you are talking to them) on the part of the principal does not encourage more positive interactions and trust the next time you meet with your principal. In addition to body language, teachers implied their principals' choice of words hindered or supported their continuous improvement.

Most of the teachers noticed the tone, and words their principals used. Needing encouragement such as, "I can not think of anything in particular that is said, but my principal's words are typically encouraging when it comes to making improvements in one's instructional practices," rippled through most of the teachers responses. Teachers did not use the phrase "feedback" but alluded to the concept in various ways. For example, one teacher stated, " Specific examples that directly correlate to what I am trying to accomplish are key. I need concrete. Vague ideas do not work for me." Other teachers shared specific phrases that imply the desire for effective feedback such as "Together, we can... Let us think of how we... how about you try... have you ever thought of...When I tried [this], it resulted in...."

All of the teachers implied a desire for interactive discussion and feedback from their principals on ways to improve their own instruction and the school. The teachers' responses suggested receptivity to making changes if a positive relationship with their

principal existed and back and forth conversations occurred.

Five of the 20 teachers from Phase Two interviewed on ways to improve instruction. Overall, teachers demonstrated a hesitancy to interview. Out of the five volunteers, three voiced concerns and needed reassurance that anonymity would be honored; they feared their principals.

Phase Three Interviews. To examine how teachers view their principals' social intelligence in promoting or hindering their continuous improvement, the Phase Three interviews sought to yield common themes. Emergent themes were (a) empathy, (b) body language, (c) inspiration, and (d) collaborative leadership. Similar to Phase Two written answers, empathy surfaced as a prevalent theme.

Empathy. Empathy threaded through the teachers' responses from different perspectives. Teachers indicated empathy towards the demands on their principals, but also stated that they wished their principals showed empathy towards the complexities of their teaching jobs. Two teachers insisted that their principals needed to be more empathetic and understand, "Kids and families have changed." The other teachers did not place empathy as a strength for their principals, which implied that they also perceived their principals as lacking empathy to the challenges they face every day.

The teachers referenced the amount of responsibilities required of their principals. They tolerated the distractions away from student learning that their principals endure and admitted a lack of understanding of the principal role. All of the teachers stated that they preferred an instructional leader rather than a building manager and knew the difference.

One teacher responded with, “How can I respect him as an educational leader, if I can’t see him as a good teacher? Business man- now that’s a different story.” She recognized the importance of task completion but felt improvement fell exclusively on the teachers because of the management priority of the principal.

Body Language. A high awareness of principals’ body language surfaced in some form from all the teachers as both hindering and promoting continuous improvement. Teachers concurred that body language signals approachability. One teacher commented, “People hesitate to make suggestions because her body language implies we are bothering her. In reality, she is probably very focused on all of the things that she has to do, but it reads not open to listening to the teacher who may need assistance to improve.” Another teacher stated, “You can see after a certain point he looks distant, probably his body needs to move. . . . It’s kind of like eyes that are looking elsewhere or body stance turns.”

In contrast, one teacher remarked that her principal sends a welcoming message when he, “looks in your face and speaks with an even tone. He starts a conversation by a shoulder tap, or handshake. He is friendly which automatically takes your defenses down.” This same teacher equated his demeanor to her feeling comfortable to try new things. Regardless of the message that principals’ body language sends, teachers interviewed indicated an awareness of body language, possibly linking to inspiration to improve.

Inspiration. Inspiration to improve emerged as a reoccurring theme with most of the teachers who participated in the interviews. Inspiration did not materialize in written responses in Phase Two. The teachers expressed a desire to take risks in a nonthreatening

climate but wanted their principals to also inspire them. One teacher stated, " I get inspired when I'm asked to show, explain or someone takes an interest in what I do." Another teacher referenced an evaluative observation with, "I would like immediate feedback in the moment. . . . The really rich back and forth just doesn't happen. I would like her to ask me then and there what or why I'm doing something." These teachers' examples were dissimilar in context, but interlaced together when expressing what inspires them to become better teachers. In essence, they both requested interaction with their principals suggesting a need for collaborative leadership styles to improve.

Collaborative Leadership. Teachers expressed that principals requested teacher feedback. However, the teachers described the feedback experience with mixed results. Some of the teachers indicated that their principal asks for feedback, but lacked follow up with the rationale supporting the final decisions made. The lack of follow up devalued their input, or questioned the authenticity of the feedback request. One teacher pointed out, "There is always the danger that when you solicit input, everyone needs to feel heard. . . . You don't want people to feel like you ask and then we never see it." Principal leadership demands collaboration with the exchange of feedback, yet it is likely that teachers misunderstand that not all feedback can be used. At the same time, principals might assume that teachers know that all feedback cannot be used leading to a perceptual gap of the benefits of collaborative leadership.

Research Question Two Categories of Key Findings

I garnered three key findings linked to how teachers view their principals' social intelligences in promoting or hindering their continuous improvement (Research

Question Two). The categories of key findings as related to *Educational Leadership Behavior, School Culture, Principals' Body Language* are subsequently explained.

Educational Leadership Behavior. Most principals reported an understanding of social intelligence and believe they exhibit behavior related to social intelligence that cultivates continuous improvement with teachers. Principals and teachers emphasized a high need for principals to understand social intelligence to strengthen leadership skills to influence teachers to continuously improve, particularly in the areas of empathy and listening. A majority of teachers responded that they value continuous improvement and indicated their principals' social intelligence behavior impacts their ability to continuously improve.

School Culture. Both teachers and principals referenced school culture as a major factor for continuous improvement. School cultures grounded in trust emerged with trusting principals as essential for improvement. Without trust in their principals, teachers hesitated to try new techniques necessary to learn better ways to teach. Lack of trust then rippled into untrustworthy school cultures.

Principals' Body Language. Teachers reported a substantial awareness of the impact of their principals' body language on their willingness to improve. Both positive and negative body language surfaced as promoting or hindering teachers' continuous improvement. For example, principals who consistently used appropriate eye contact signaled active interest, in contrast to principals who appeared distracted and disinterested due to inconsistent eye contact.

Research Question One and Research Question Two unveiled responses that indicated misunderstandings between principals and teachers on how principals' social

intelligence behavior links to teachers' continuous improvement. Perceptual gaps between teachers and principals are explored in the following section by examining Research Question Three: What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

Individual School Data Analysis: Research Question Three

Through an examination of four schools, Phase Four attempted to identify similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve (Research Question Three). The data presented revealed perceptions from teachers specific to their principals' answers about the study's framework of the elements for social intelligence (as defined by Boyatzis & Goleman, 2008). In collaboration with the principals, I changed *awareness of organization* to *awareness of school culture* to generate data specific to culture.

To insure anonymity, the 41 teachers selected from the four schools only participated in Phase Four; however, the four principals participated in all other phases of the study. The section is organized by each school's analysis and concludes with categories of key findings. Research Question Three framed the teacher survey and generated deeper conversations with the four participating principals.

The following section presents the quantitative and qualitative data for each school to interpret the perceptual data of principals and teachers. The mixed methods research approach allowed for the mixing of data to examine the research question. I

displayed each school's data in a similar structure labeled School One through School Four.

School One

Twelve teachers completed the survey for School One. The quantitative data revealed that teachers view Principal One in the medium to high ranges for using social intelligence to assist teachers to continuously improve as presented in Figures 4.6 and 4.7

Figure 4.6

Seven Categories of Social Intelligence

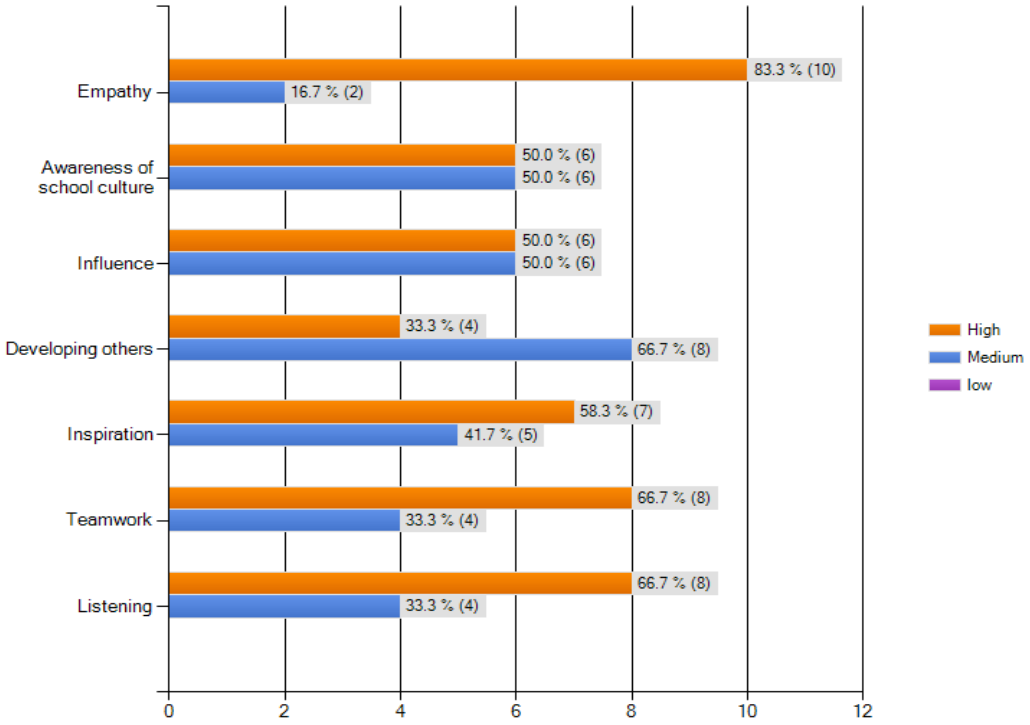
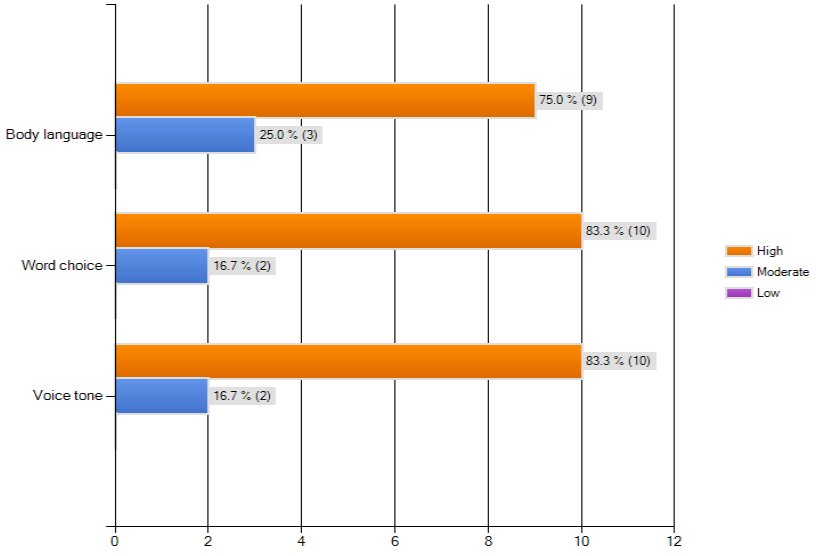


Figure 4.7

Social Intelligence Components



These data revealed similar reports from the teachers and principal for School One. Principal One self -reported strengths in listening skills that provide authentic opportunities for empathy. Specifically, Principal One stated, "It is essential to find a way to demonstrate a connection; eye contact, active listening, and physical presence at the right times are all ways to demonstrate caring, understanding and empathy, " which concurred with the preceding QUAN data displayed in Figure 4.6. A teacher described Principal One as, " insightful and recognizes others' feelings presented through non-verbal language. Additionally, her word choice is thoughtful, and she maintains neutral body language and tone of voice when communicating individually or within groups."

Differences that emerged in School One connected to awareness of school culture. Principal One prioritizes a school culture of improvement, and stated that " continuous improvement is a cultural norm," however, the QUAN data from Figure 4.6 indicated that some teachers disagreed on how well Principal One understands the school culture.

School Two

Nine teachers completed the survey for School Two. The QUAN data revealed that teachers view Principal Two primarily in the medium range for using social intelligence to assist teachers to continuously improve as presented in Figures 4.8 and 4.9. In Figure 4.9 teacher perception shifted to lower ratings specific to body language, word choice and voice tone.

Figure 4.8

Seven Categories of Social Intelligence

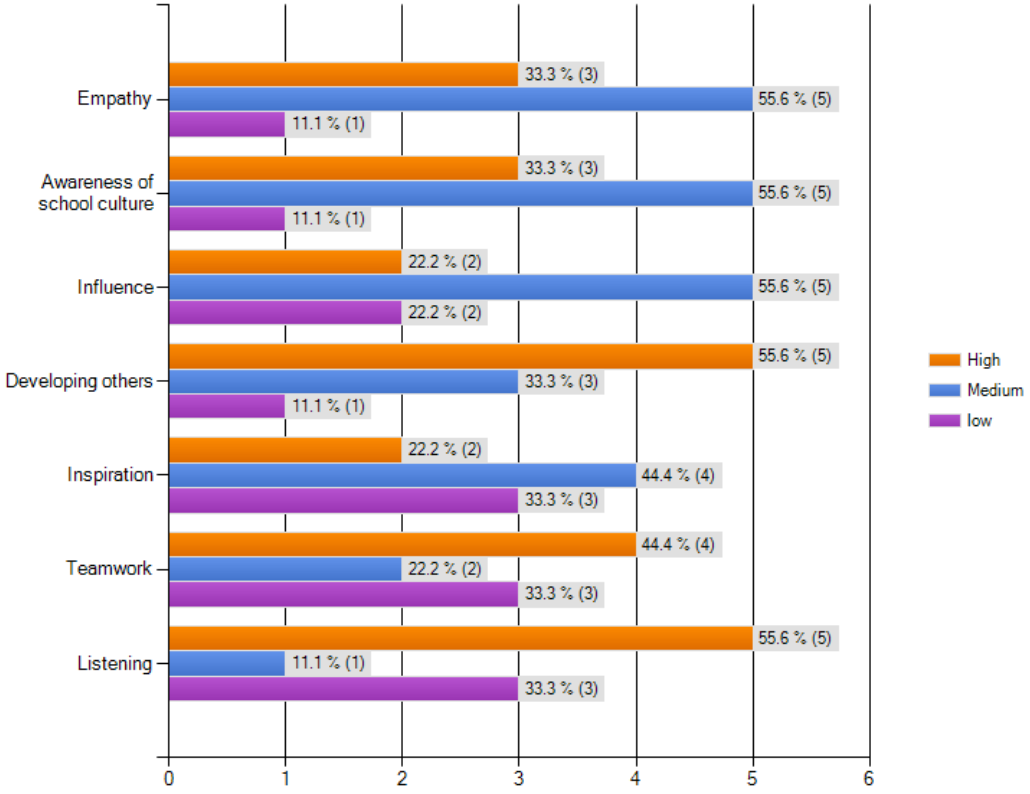
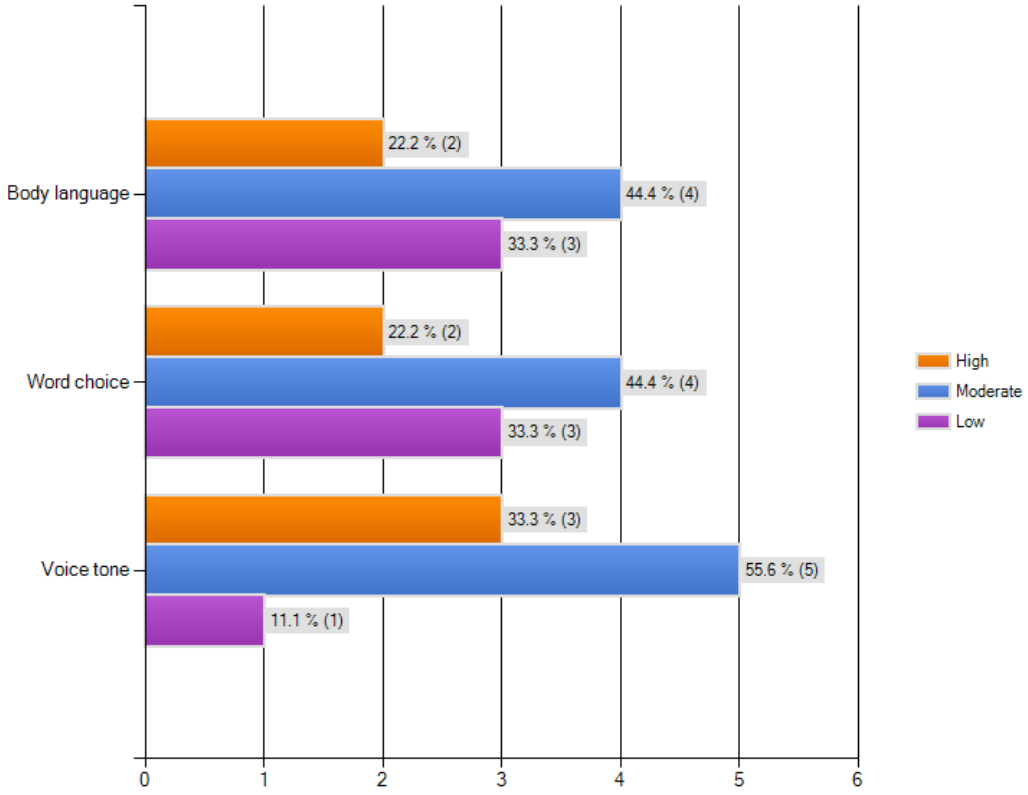


Figure 4.9

Social Intelligence Components



Principal Two reported a moderate understanding of social intelligence that aligned with the QUAN teacher data in Figure 4.8. Teachers identified developing others as one of Principal Two's strongest qualities, which also concurred with Principal Two who reported, " developing others would be the one that is the strongest."

Perceptual differences emerged with Principal Two reporting, " I am a listener." However, one teacher captured thoughts of others by writing in the QUAL data portion that Principal Two, "doesn't present as actively engaged in listening due to multi tasking with phone calls, and sometimes comes across as defensive in conversations." The QUAN data in Figure 4.8 showed listening listed in the high level from five teachers.

The data suggested that listening skills for Principal Two might be dependent on individual experiences. Also, the QUAN data in Figure 4.9 listed body language in the moderate to low levels, which might contribute to the different perceptions from teachers.

School Three

Eleven teachers completed the survey for School Three. The QUAN data in Figure 4.10 indicated empathy as significant strength in comparison to the other six qualities of social intelligence. Influence, developing others and teamwork fell into the lower ranges. Figure 4.11 showed a progression to lower ratings specific to body language word choice and voice tone. Several teachers referenced difficulties with body language in the QUAL data portion of the survey indicating a feeling of disinterest from their principal. One teacher wrote, "he needs to work on social skills of eye contact and body language that reflects active listening."

Figure 4.10

Seven Categories of Social Intelligence

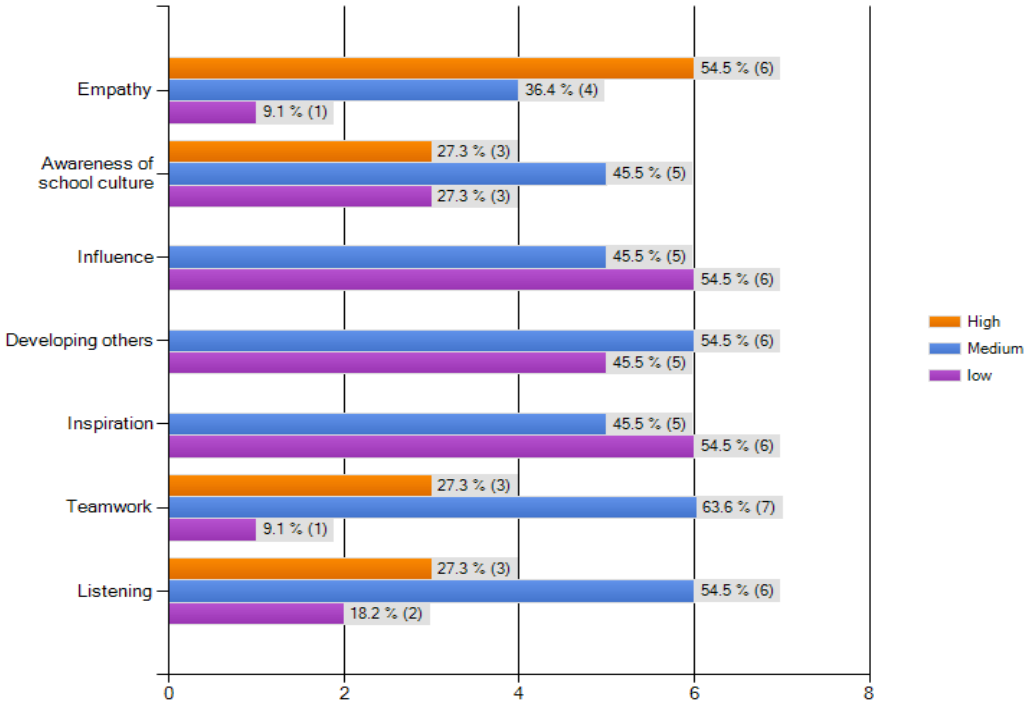
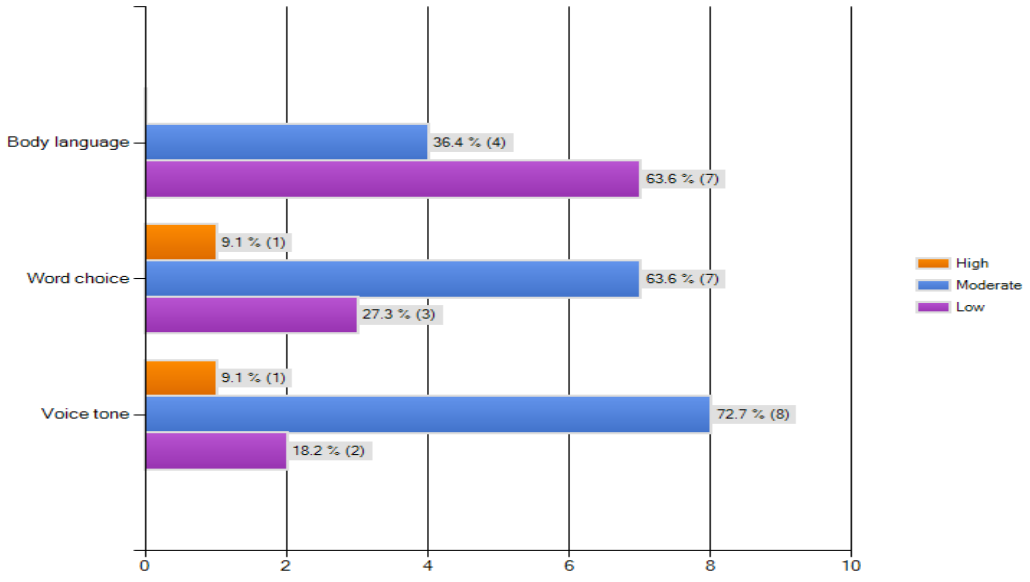


Figure 4.11

Social Intelligence Components



Principal Three reported a low understanding of social intelligence, which corresponds with teacher perception. Specific to body language Principal Three wrote, " I am very aware that often my body language, particularly my facial expressions, do not show what I am truly feeling. For example, I often look upset or angry when I am simply concentrating on a problem or intensely listening." Teacher and Principal Three's perception of body language corresponded. Principal Three also reported empathy as his strongest quality, which matched teacher perception.

Differences emerged specifically with listening. Principal Three reported listening as a strength, but the QUAN teacher data in Figure 4.10 rated listening much lower than empathy. The data suggested that the Principal's body language interfered with how teachers perceive his active listening skills.

School Four

Nine teachers participated from School Four. The QUAN data showed teachers perceived Principal Four as exhibiting medium to high social intelligence in most areas with empathy and influence emerging as the highest as shown in Figure 4.12. Body language, voice tone and word choice also were perceived in the medium to high ranges as shown in Figure 4.13.

Figure 4.12

Seven Categories of Social Intelligence

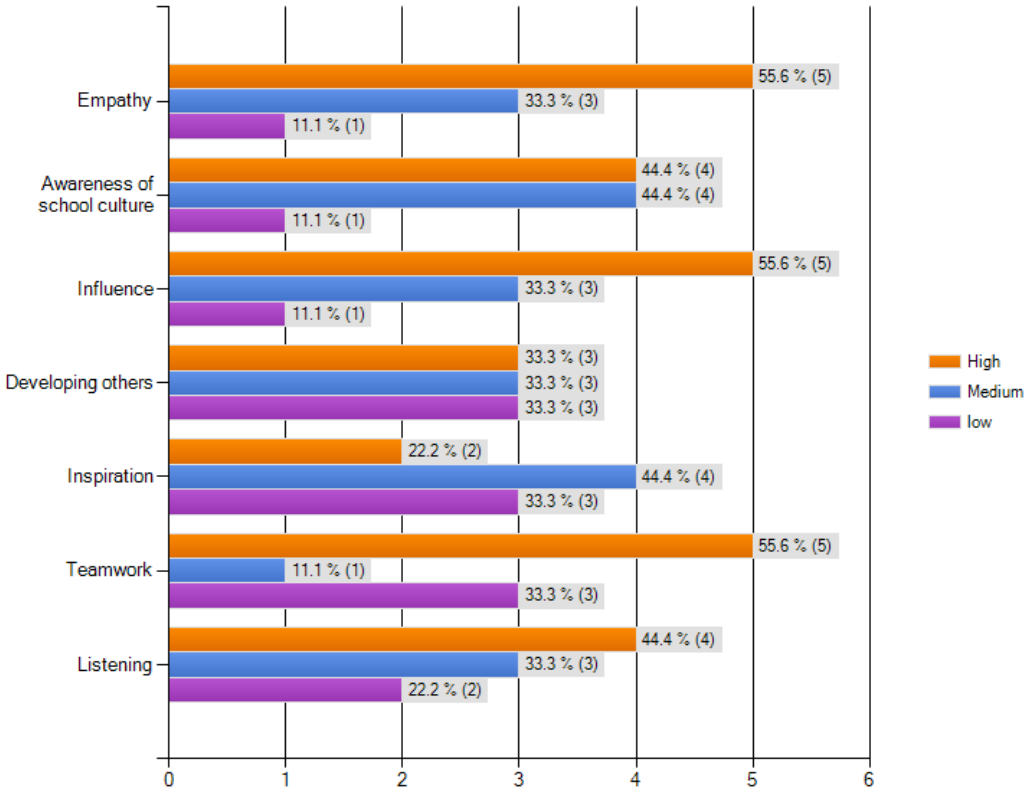
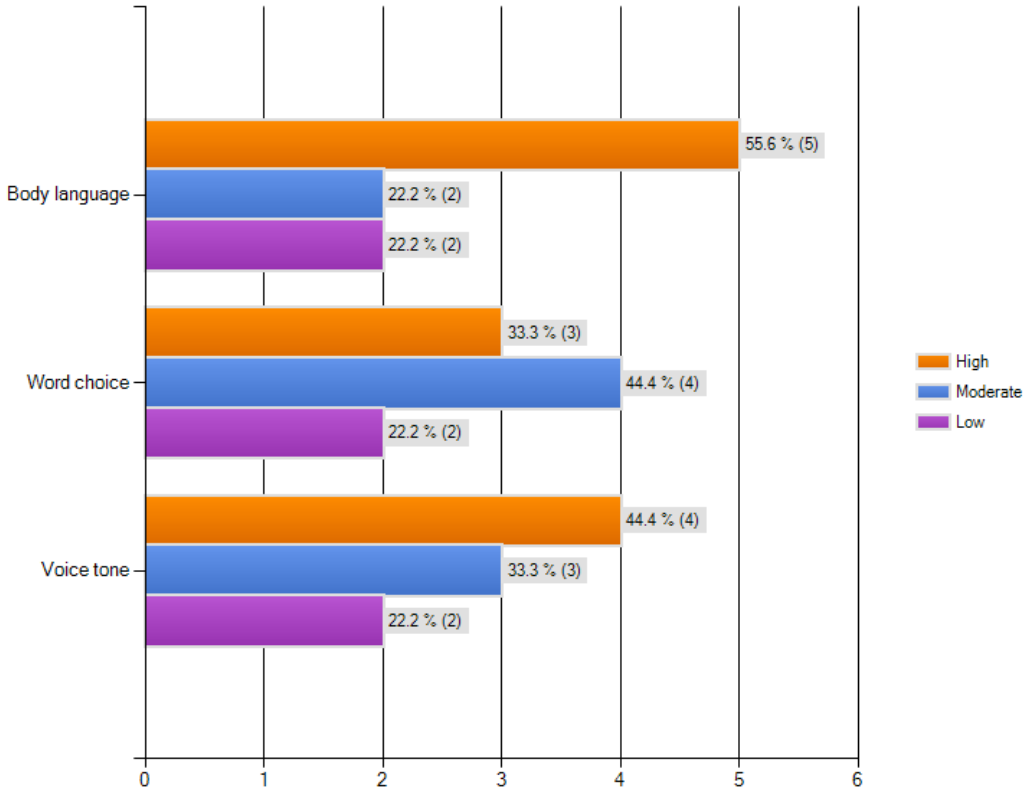


Figure 4.13

Social Intelligence Components



Principal Four reported empathy as his strongest quality and stated, "when teachers come to me with a problem, I try to put myself in their shoes and solve the problem with them in order to improve their practice." Interestingly, Principal Four added, "empathy doesn't come naturally. I've worked on it." The QUAN data in Figure 4.12 aligned with Principal Four's self-report.

Differences emerged in the understanding of social intelligence that Principal Four reported as moderate. The teachers as shown in Figure 4.12 perceived Principal Four as moderate to high. Overall, Principal Four self-reported much lower in most categories than teachers perceived suggesting a quality of humility unique to this principal compared to the other three. Throughout the interview, I noted that Principal

Four reported modestly and hesitated to rate himself in the higher ranges of social intelligence.

Table 4.12 summarizes the data from the four schools.

Table 4.12

Shared Perceptions and Perceptual differences between teachers and principals

Schools	Shared Perceptions	Perceptual Differences
School One	Empathy and listening as strengths	School Culture
School Two	Moderate social intelligence with strength in developing others	Body language & listening
School Three	Low overall social intelligence	Body Language & listening
School Four	Empathetic and Influential	Body Language

Research Question Three: Key Finding

I discovered a key finding that linked to the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve (Research Question Three). The key finding category related to *Similar and Dissimilar Perceptions of Teachers and Principals* is subsequently explained.

Similar and Dissimilar Perceptions of Teachers and Principals. The teachers and principals within each school shared similar perceptions of what element of effective social intelligence is needed for each principal to lead their teachers to continuously improve. Perceptual differences surfaced where principals viewed themselves as actively

listening, but their body language sent a subliminal message of distraction or disinterest to teachers. More specifically, perceptual differences surfaced in areas such as school culture, body language, word choice, and voice tone. For example, principals emphasized specific word choice directly linking to student learning, but teachers reported misunderstandings with the messages some principals intended to convey.

Categories of Key Findings Summary

The key findings emerged through the data analysis connected to each research question within the mixed methods approach. Based on the sequential explanatory strategy, qualitative data dominated the quantitative data yielding the categories of key findings for the study subsequently presented.

Educational Leadership Behavior

Most principals reported an understanding of social intelligence and believe they exhibit behavior related to social intelligence that cultivates continuous improvement with teachers. Principals and teachers emphasized a high need for principals to understand social intelligence to strengthen leadership skills to influence teachers to continuously improve, particularly in the areas of empathy and listening. A majority of teachers responded that they value continuous improvement and indicated their principals' social intelligence behavior impacts their ability to continuously improve.

School Culture

Both teachers and principals referenced school culture as a major factor for continuous improvement. Teachers indicated that trusting their principals was essential to continuous improvement. Without trust in their principals, teachers hesitated to try new

techniques necessary to learn better ways to teach. Lack of trust then rippled into untrustworthy school cultures.

Principals' Body Language

Teachers reported a substantial awareness of the impact of their principals' body language on their willingness to continuously improve. Both positive and negative body language surfaced as promoting or hindering teachers' continuous improvement. For example, principals who consistently used appropriate eye contact signaled active interest, in contrast to principals who appeared distracted and disinterested due to inconsistent eye contact.

Similar and Dissimilar Perceptions of Teachers and Principals

The teachers and principals within each school shared similar perceptions of what element of effective social intelligence is needed for each principal to lead their teachers to continuously improve. Perceptual differences surfaced where principals viewed themselves as actively listening, but their body language sent a subliminal message of distraction or disinterest to teachers. More specifically, perceptual differences surfaced in areas such as school culture, body language, word choice, and voice tone. For example, principals emphasized specific word choice directly linking to student learning, but teachers reported misunderstandings with the messages some principals intended to convey.

In summary, I designed Phase One of the study to solicit participants across Massachusetts. Phases Two and Three used qualitative questionnaires and interviews respectively. Phase Four combined quantitative and qualitative measures. The qualitative dominate data led to the categories of key findings for the study. The categories of key

findings set the groundwork for conclusions, recommendations and future research in Chapter Five.

CHAPTER FIVE: SUMMARY, DISCUSSION, RECOMMENDATIONS, FUTURE RESEARCH & FINAL REFLECTIONS

The chapter begins with an introduction that briefly restates the context for the study, followed by a summary of the study, and a discussion of conclusions stemming from data related to categories of key findings. Recommendations for principals, superintendents, teachers, and institutions of higher education follow. Future research about this topic and final reflections conclude the chapter.

Introduction

Finding ways to adequately meet the 21st century learning needs for all students continues to plague the American school system. Theorists, researchers, practitioners, politicians, parents and students chime in to examine problems and offer solutions, but progress is slow and questionable. The recent study released by MetLife (2013) indicated that meeting the needs of all students continues to be one of the top two challenges reported by teachers and principals alike.

The achievement gap has not closed. Increasing teacher capacity surfaced as a feasible answer to part of the reform solution (Bryk et al., 2010; Darling-Hammond, 2010; DuFour & Marzano, 2011; Frank & Miles, 2008; Hiebert & Stigler, 1999; Ravitch, 2010; Wagner, 2008), which then brings forth the role of the principal linked to teacher improvement. Dufour & Marzano (2011), Marzano, McNulty & Waters (2005), Reeves (2009), and many others have outlined effective leadership behaviors, but Boyatzis & Goleman (2008), Goleman (2011a) and Klimek et al. (2008) combined neuroscience research with leadership qualities.

I hypothesized that leadership strategies informed by the social intelligence of principals might impact teachers' instructional improvement to help meet the needs of all students. Specifically, I explored the link between principals' social intelligence and teachers' continuous improvement by using the mixed methods research approach. Overall, the study sought to generate information about the important qualities and skills needed for principals to impact American education in the 21st century.

The significance of this study sought to provide information to assist principals to better understand how their social intelligence capacity impacts teachers' continuous improvement. A second layer of significance intended to help superintendents, teachers, policy makers and higher education faculty to better understand how principals' social intelligence links to teachers' improvement. More specifically, the study aimed to delineate what behaviors in the context of social intelligence teachers need from their principals to continuously improve. The study also examined how teachers view their principals' social intelligence in comparison to principals' self-reports.

Study Summary

This study summary section begins by restating the purpose and three guiding research questions. Following that, I discuss the (a) conceptual framework, (b) research design, and (c) delimitations.

The purpose of this study was designed to examine how principals' social intelligence links to teachers' continuous improvement. Three research questions guided the study:

1. What are ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?

2. How do teachers view their principals' social intelligences in promoting or hindering their continuous improvement?

3. What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

Conceptual Framework

I worked as a teacher and a principal that grounded the initial framework for the study. After a multitude of interactions with teachers and principals, evidence suggested that many principals did not understand or recognize how their social intelligence influenced the teachers to continuously improve. From these observations I then gathered relevant literature to frame the study.

First, I chose research from the areas of social intelligence and continuous improvement to gain a broader and deeper understanding of these two major components of the study. Second, because of my association with educational leadership, social intelligence connected to leadership contributed to the framework. Third, school culture and teacher mindsets emerged as secondary topics. Each area of literature is subsequently explained with key authors noted.

The literature review examined the history of social intelligence within the biological context of neuroscience research, and the relationship between social intelligence and effective leadership practices. The research and literature written by Boyatzsis and Goleman (2008), Goleman (2006, 2011a, 2011b) and Klimek et al. (2008), provided the context for the research. Specifically, I used the research released by Boyatzis and Goleman (2008) who identified a substantial performance gap between

"socially intelligent and socially unintelligent leaders"(p. 2) with the development and implementation of their Emotional and Social Competency Inventory. I chose Boyatzis' and Goleman's (2008) seven qualities of social intelligence exhibited by successful leaders worldwide to frame the surveys and interviews for the data collection part of the study.

A second objective of the study examined what teachers need from principals to continuously improve. I probed into the history of continuous improvement to juxtapose similarities and differences between the business sector and educational improvement since the 1900's. Authors Dufour and Marzano (2011), Frank & Miles (2008), Fullan (2013), Kegan and Wagner (2006), and Reeves (2006) contributed to the comparisons between the education and business sectors. Similarities threaded through the literature in agreement that change and improvement in education continues to make very slow progress.

Literature regarding mindsets, relational trust, and school cultures contributed as relevant factors to teachers' continuous improvement. Dweck's (2006, 2010, 2013) field research on the growth mindsets combined with Haberman's (2012) research defining star/quitter teachers added to the context of teachers' mindsets. Additional researchers on the topic of trust included: (Blankstein, 2004; Bryk et al., 2010; Ciesluk, 2011; Cross & Parker, 2004; Fink & Hargreaves, 2006; Fullan, 2013; Kegan & Wagner, 2006; Lencioni, 2005, 2012).

Research Design

A mixed method approach utilizing a sequential explanatory strategy structured the study design, combining both quantitative and qualitative methods. The sequential

explanatory strategy was selected to interpret quantitative data at a deeper and more personal level with qualitative measures (Creswell, 2009). I chose the mixed method approach to initially solicit a larger sampling of principals and teachers with a quantitative survey. By design, the qualitative portion of the study (Phase Two written text and the Phase Three interviews) served as the dominating data to generate findings for Research Questions One and Two. Phase Four revealed findings for Research Question Three by mixing quantitative and qualitative data together with qualitative data serving as the dominating measure.

The study design unfolded in four phases, beginning with the quantitative survey. The Phase One survey contacted 127 principals and 331 teachers via email across Massachusetts to solicit principals and teachers interested in the topic. Forty-seven teachers and 34 principals participated in the Phase One survey.

After Phase One, participants from the larger sample size volunteered for the qualitative portion of the study rendering a more diversified group of principals and teachers to participate for the next three phases. Twenty-two principals and 21 teachers volunteered to answer open-ended written questions for Phase Two; 9 principals and 5 teachers interviewed in Phase Three. Four principals volunteered for Phase Four to anonymously survey the teachers in their respective schools to investigate Research Question Three. The mixed method research approach framed the four-phase study.

Delimitations

The electronic means of email solicitation developed into an unanticipated limitation of the study. In the data collection phase I discovered heightened email security in the urban districts in contrast to the suburban and rural districts. The reduced access

might have led to the low urban response rate for both teachers and principals that limited the study findings. A larger sampling from the urban districts might have brought a wider and more diversified breadth of data to the study.

The mixed method research design for small scale research limits the amount of participants because of the time needed for data collection (Creswell, 2009) that led to another limitation of the study connected to the research process. I intended to interview 10 teachers, but only five volunteered. Also, 14 principals volunteered for the interviews, but I interviewed 9 principals due to time and availability constraints. Regardless of the reason, a larger sample size might have enhanced the study.

I delimited the study to educators in public and charter schools in Massachusetts in the study design. Expanding the study nationwide to all educational venues would have produced a broader range of data to influence the study's findings.

Also, I delimited the survey language based on preliminary feedback from colleagues. I replaced the term "attunement" (Boyatzis & Goleman, 2008) with listening in the surveys to simplify the terminology for the participants. However, the definition of "attunement" also includes understanding others' moods through listening. By delimiting this term, the data showed minimal responses that included the principals' abilities to comprehend teachers' moods. The shift in terminology might have skewed the data collection and analysis possibly impacting the categories of key findings.

Discussion

The study examined how the social intelligence of principals linked to the continuous improvement of teachers. In addition, the study sought to determine if there are similarities and differences between teacher and principal perceptions of what

effective social intelligence is needed for principals to lead teachers to continuously improve.

The study generated four categories of key findings related to principals' social intelligence: (a) educational leadership behavior, (b) school culture, (c) principals' body language, and (d) similar and dissimilar perceptions of teachers and principals. What follows is a discussion of the categories of key findings for the three research questions connected to each phase of the study, including conclusions and delimitations based on data generated from both quantitative and qualitative measures.

Research Question One: What are ways that principals report they are using their social intelligence to help teachers continuously improve instructional practice?

Based on Research Question One, I determined two categories of key findings from the ways principals reported they are using their social intelligence to help teachers continuously improve instructional practice: *Educational Leadership Behavior and School Culture.*

Key Finding Category: *Educational Leadership Behavior*. Most principals reported an understanding of social intelligence and believe they exhibit behavior related to social intelligence that cultivates continuous improvement with teachers. Principals and teachers emphasized a high need for principals to understand social intelligence to strengthen leadership skills to influence teachers to continuously improve, particularly in the areas of empathy and listening. A majority of teachers responded that they value continuous improvement and indicated their principals' social intelligence behavior impacts their ability to continuously improve.

Key Finding Category: *School Culture*. Both teachers and principals referenced school culture as a major factor for continuous improvement. School cultures grounded in trust emerged with trusting principals as essential for improvement. Without trust in their principals, teachers hesitated to try new techniques necessary to learn better ways to teach. Lack of trust then rippled into untrustworthy school cultures.

Data and Conclusions. The first data relevant to the key finding category related to *Educational Leadership Behavior* connected to the responses from male and female principals. The response rate for principals was higher for men at 61% (18) compared to women at 56.3% (16), which I did not anticipate since the education profession is predominately women.

A conclusion can be drawn that gender plays a role in leadership specific to principals' social intelligence and teacher continuous improvement. Boyatzis and Goleman (2008) stated that women, in general, typically sense others' emotions faster than men, but men exhibit stronger social confidence in work settings. Margaret Hopkins' (as cited in Boyatzis & Goleman, 2008) research revealed gender social intelligence differences amongst a tested group of bank CEOs; however, with noted effective leaders in the test group, social intelligence gender differences did not emerge. While Hopkins' (as cited in Boyatzis & Goleman, 2008) research suggested that there are no gender differences with highly effective leaders in a business setting, contemporary research is sparse with gender comparisons in educational settings.

Kirtman (2014) framed educational leadership with a list of seven competencies and suggested the Myers Briggs Type Indicator test to further analyze high performing leaders. The author failed to tease out gender differences in a predominately female field.

Even though Klimek et al. (2008) described effective school leadership in the context of how the brain functions, gender was not discussed. A second conclusion can be made that leadership in educational settings differs from leadership in business settings, particularly in the context of social intelligence and continuous improvement.

Besides gender differences, I also examined the connections between educational degrees and principals' familiarity with social intelligence that led to the key finding related to the category of *Educational Leadership Behavior.* The descriptive data revealed that 35.3 % (12) principals earned a Master's degree in contrast to 64.6 (22) who aspired to a higher degree. These data proved interesting since Massachusetts does not require principals to earn beyond a Master's degree. Even though 23.5 % (8) of the participants working towards doctoral degrees might be due to my relationship with colleagues from Lesley University, the data showed that 14 other principals sought a higher educational degree. A conclusion can be drawn that principals who study at an advanced level might be more informed about social intelligence; thus, more apt to apply elements of social intelligence to leadership.

Based on Goleman's (2011a) research that empathy is an essential quality for great leaders, I probed more deeply into how the principals self–reported in connection to empathy. A conclusion can be drawn that empathetic principals might prioritize their time to focus on interaction with their teachers; thus, suggesting a positive influence on teachers' continuous improvement. In contrast, a second conclusion can be made that principals who reported empathy as a growth area might be in schools or districts that do not allow principals to work with their teachers in authentic ways. For example,

principals referenced factors unrelated to instruction and teacher improvement that monopolized their time.

Besides the behaviors corresponding to empathy, I sought to identify themes based on reoccurring implications from the participants that connect to the categories of key findings related to *Educational Leadership Behavior* and *School Culture*. Two principals from high performing schools stated that their teachers did not see any reason to change to improve. Both principals indicated that the high performing status bred complacency that led to teacher resistance. The data from these two principals led to the conclusion that school's labeled as high achieving by the DESE ("Massachusetts department of elementary and secondary education," 2013) state measurement system might create a school culture satisfied with just good test results. These two schools possibly epitomize why the battle between state testing advocates and educators in the field persists. A second conclusion can be drawn that principals might have challenges with defending reasons for improvement when the state test results send contradictory messages to teachers in high performing schools.

State testing results might be an informative data source, but the test results potentially cloud teachers' perceptions of what quality teaching looks like. In other words, is this scenario a paradigm where "Good is the enemy of great" (Collins, 2001, p. 1)? On the contrary, what message does the achievement label send to teachers and principals in schools labeled in need of improvement, yet meet the complex needs of each child? A conclusion can be drawn that because the difficulties with quantifiably measuring the social and emotional growth of students cannot compete with the ease of

analyzing numerical test scores, the focus in measuring school improvement will remain on test scores.

In addition to the two principals perspectives of their high performing school cultures, the other principals reported vocal teachers resistance to change that negatively impacted school climates where fragmented, untrusting school cultures formed over time. All the principals voiced experience with teachers who supported improvement, yet sabotaged the change process. A conclusion can be drawn that most principals have experienced resistance to change from teachers. Possibly, a better understanding of social intelligence might assist principals to apply the appropriate leadership skills to shift school cultures towards continuous improvement.

All nine principals highlighted lack of time to accomplish basic school management responsibilities, which interfered with their abilities to cultivate climates, and over time school cultures that foster improvement. The daily reality of a typical school day negatively impacted their capabilities to prioritize teacher improvement and blended into two predominate external factors: unrealistic demands from central office and budget shortfalls rippled through every principal's answers. The principals' responses led to the conclusion that superintendents unknowingly might be obstacles that prevent educational improvement.

Superintendent leadership corresponding to principal leadership for teacher improvement was a delimitation of the study. However, data gleaned from the study corroborated the literature that superintendents need to assist principals with improving their leadership abilities to improve their schools (Cuban, 2012; Fullan & Sharratt, 2009;

Hiebert & Stigler, 1999). Fullan (2010, 2013) and Kilmek et al. (2008) maintained that improvement must be system change, not just school change.

Another possible delimitation linked to both categories of key findings related to *Educational Leadership Behavior* and *School Culture* was the impact of formal evaluation on continuous improvement. The Massachusetts DESE (2013) evaluation tool focuses on teacher growth linked to ongoing measureable student performance. The associated rubrics to describe proficient teaching will increase consistency, but the impact of accountability still rests with the principals' interpretations.

A conclusion can be made that moving teachers to proficiency and exemplary levels on the Massachusetts' DESE (2013) evaluation rubric also lies with the principals' leadership abilities. A second conclusion can be drawn that principals will need crafted leadership skills that include key elements of social intelligence to assist teachers to meet the criteria outlined in the evaluation tool. In addition, principals need to insure that teachers and unions accept the new tool in a way that improves instruction.

The data from the study combined with the literature previously presented highlights implications of system reform as an attractive solution to improving school cultures, and eventually education. The next section discusses the teacher data that corresponds to Research Question Two.

Research Question Two: How do teachers view their principals' social intelligences in promoting or hindering their continuous improvement?

The same two key findings relative to Research Question One also emerged when examining Research Question Two; and a third key finding category related to *Principals' Body Language* emerged from the teacher data.

Key Finding Category: *Educational Leadership Behavior*. Most principals reported an understanding of social intelligence and believe they exhibit behavior related to social intelligence that cultivates continuous improvement with teachers. Principals and teachers emphasized a high need for principals to understand social intelligence to strengthen leadership skills to influence teachers to continuously improve, particularly in the areas of empathy and listening. A majority of teachers responded that they value continuous improvement and indicated their principals' social intelligence behavior impacts their ability to continuously improve.

Key Finding Category: *School Culture*. Both teachers and principals referenced school culture as a major factor for continuous improvement. School cultures grounded in trust emerged with trusting principals as essential for improvement. Without trust in their principals, teachers hesitated to try new techniques necessary to learn better ways to teach. Lack of trust then rippled into untrustworthy school cultures.

Key Finding Category: *Principals' Body Language*. Teachers reported a substantial awareness of the impact of their principals' body language on their willingness to continuously improve. Both positive and negative body language surfaced as promoting or hindering teachers' continuous improvement. For example, principals who consistently used appropriate eye contact signaled active interest, in contrast to principals who appeared distracted and disinterested due to inconsistent eye contact.

Data and Conclusions. I hypothesized in Phase One of the study that there was a statistical significance between the years teachers have worked with their current principal and how they view their principals' social intelligence behavior. A conclusion can be drawn that the data might bring new insights to the length of relationships and the

development of social intelligence for more effective leadership over time that connects to the key finding category related to *Educational Leadership Behavior*.

I also examined ways that teachers reported they continuously improve outside of direct interaction with their principal. Assessing student work with colleagues was mentioned most often, which corresponded with current literature (DuFour & Marzano, 2011; Erkens, 2009; Huff, 2009). However, conclusion can be drawn that social capital, which "focuses on social relations that have productive benefits" (as defined by Claridge, 2004, p. 1) might have influenced some of the teachers' responses. I omitted social capital from the study, and the concept did not emerge in any phase of the data collection.

Outside of the study, as a supervising principal of my middle school, I experienced hesitation with many teachers when asked to analyze student work or test results with colleagues. In particular, data that linked directly to their teaching effectiveness intimidated some teachers. A second conclusion can be drawn that by delimiting social capital from the study, honest teacher responses about analyzing student data with their colleagues might have been affected that links to the key finding category related to *School Culture*. Data analysis is a requirement in most schools. Teachers have learned they are supposed to analyze data, which might have prompted them to prioritize collaborative assessment analysis in their answers.

Within the context of principal behavior, Phase Two of the study revealed empathy, trust, body language and word choice as the ways teachers view their principals' social intelligence in promoting or hindering their continuous improvement. Empathy and listening linked to improvement, particularly in the context of trust,

threaded through many responses linking to the key finding category related to *Educational Leadership Behavior.*

By design, I used the participants' individual perspective of trust with their principal and school setting; however, the significance of trust surfaced as an emotional area for teachers especially if they perceive their principals as untrustworthy. Teachers linked trust in their principals to taking risks to improve their instruction. The responses around trust connected to the key finding category related to *School Culture.* A conclusion can be drawn that teachers desire a school culture where mutual trust prevails that also coincided with the literature framing the study (Blankstein, 2004; Bryk et al., 2010; Ciesluk, 2011; Cross & Parker, 2004; Fink & Hargreaves, 2006; Fullan, 2013; Kegan & Wagner, 2006; Lencioni, 2002, 2012).

By not explicitly defining trust, the data obtained limited the depth of meaning that the teachers meant to convey in their written responses and how I interpreted the data. Regardless of this delimitation, the concept of trust emerged as a major factor implying that school principals cannot ignore trust.

Teachers also wrote about the principals' body language that connected to the key finding category related to *Principals' Body Language*. Most of the teachers indicated an awareness of their principals' body language from both positive and negative perspectives. Even teachers who reported that their principals showed positive body language referenced distraction and time management concerns that manifested through the principals' body language. A conclusion can be drawn that principals need to better understand the impact of their body language. The neuroscience research has proven that most communication is nonverbal (Bowden, 2010; Goleman, 2006; Jensen, 2000), and it

is available for principals to learn better ways to send mindful subliminal messages to their teachers.

The small teacher sample for the interviews for Phase Three limited the study. However, three out of the five volunteers reiterated the importance of anonymity and voiced fear of retaliation from their principals if their principals knew they participated. Because of my lack of success in obtaining more teacher participants, I concluded that teachers hesitated to be interviewed which coincided with the literature (Elmore, 2010; Palmer, 1998). A second conclusion can be made that even though teachers are well protected by unions, fear exists.

Palmer (1998) suggested that fear stagnates teacher growth. Haberman (2012) empathized with teacher fear but maintained that the exceptional teachers rise above their fears to face obstacles to teach all students. Elmore (2010) recognized teacher fear, regardless of the reason, which linked to the continuous improvement aspect of this study and principal leadership. If teachers harbor fear that prevents improvement, principals must address it. The actual data from the study rendered minimal findings about teacher fear directly; however, the absence of teacher participation in the interviews might be a stronger indicator of fear. A final conclusion related to fear can be drawn that principals need a better understanding of what lies behind teacher fear as the study data and previous authors suggested (Elmore, 2010; Haberman, 2012; Palmer, 1998)

Even with the small sample size, common themes emerged amongst the five teachers linking to the key finding category related to *Educational Leadership Behavior.* Teachers were empathetic to the demands on their principals, but they preferred an

instructional leader rather than a building manager. In return, the teachers desired empathy and understanding from their principals to the everyday challenges of teaching in and out of the classroom. Berliner (2009) outlined the societal issues that negatively impact schools to meet the learning needs of students. A conclusion can be made that repeated reference to principal empathy might be as specific as principals showing teachers they do understand the daily challenges of teaching.

Inspiration and collaborative leadership also emerged with the five teachers connecting to the key finding category related to *Educational Leadership Behavior*. Inspiration is one of the seven elements of social intelligence (as defined by Boyatzis & Goleman, 2008); yet, it rarely surfaced in any of the Phases of the study except for here. These teachers yearned to be inspired through collaboration with their principals. The conversation entailing inspirational principals coalesced with the need for collaborative instructional leadership.

This data struck an emotional chord with me. I enjoy exchanging ideas with teachers to improve instruction directly linked to the diverse range of learners contemporary schools now embrace. Feedback from the teachers whom I supervised aligned with the study data: Teachers appreciate collaborative conversation with principals. The data posed a question about the personal desires of principals*:* What if principals avoid opportunities to personally inspire teachers? A conclusion can be drawn that principals who do not find back and forth discourse rewarding or useful may negatively impact teacher growth.

In attempts to examine specific principal and teacher perceptions, I created Research Question Three. The following section discusses the data from individual schools where both teachers and principals participated.

Research Question Three: What are the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve?

By rendering findings from the four principals who volunteered to survey their faculties, this section examines the similarities and differences between teachers' and principals' perceptions of what effective social intelligence is needed for principals to lead teachers to continuously improve. The data presented revealed perceptions from teachers specific to their principals' answers within the framework of the elements of social intelligence (as defined by Boyatzis & Goleman, 2008). In order to insure anonymity, the participating teachers in this section were not involved in addressing Research Questions One and Two. The key finding category related to *Similar and Dissimilar Perceptions of Teachers and Principals* is specific to Research Question Three.

Key Finding: *Similar and Dissimilar Perceptions of Teachers and Principals*.

The teachers and principals within each school shared similar perceptions of what element of effective social intelligence is needed for each principal to lead their teachers to continuously improve. Perceptual differences surfaced where principals viewed themselves as actively listening, but their body language sent a subliminal message of distraction or disinterest to teachers. More specifically, perceptual differences surfaced in areas such as school culture, body language, word choice, and voice tone. For

example, principals emphasized specific word choice directly linking to student learning, but teachers reported misunderstandings with the messages some principals intended to convey.

Data and Conclusions. All four schools revealed data that linked to the key finding category related to *Similar and Dissimilar Perceptions of Principals and Teachers.* The data highlighted elements of effective social intelligence needed for each principal to lead their teachers to continuously improve. In summary, the principals and teachers shared similar perceptions in the general categories of social intelligence, particularly empathy.

Teachers perceived the role of the principals' listening behavior in similar ways except in relationship to body language. A conclusion can be drawn that principals' body language might mask how teachers perceive the degree their principals effectively listen to them. A second conclusion can be made that principals' body language is showing their true thoughts implying that the teachers' perceptions must be considered accurate: Principals are not actively listening even though they think they are.

In one school the principal and teacher data differed notably in perceptions of school culture and differed slightly in the other three schools. The perceptual differences with school culture led to the conclusion that principals might need to look more closely at how they view school culture in comparison to teachers in their schools. Significant perceptual differences might lead to false assumptions by the principals and impact leadership decisions.

Since empathy has been noted as an essential component to leadership (Goleman, 2011a), I looked for comments linked to empathy in all responses. Principal Four stood

out as unique in comparison to the other three principals. The teachers and Principal Four agreed that empathy was a strength; however, Principal Four stood out by saying, "empathy doesn't come naturally. I've worked on it." The study did not probe into the motivation behind principals' efforts to improve upon specific elements of social intelligence leading to a conclusion that cultivating social intelligence as described by Goleman (2011b) might require personal efforts to make personality shifts as Principal Four mentioned.

Throughout the interview I noted a hint of humility unique to Principal Four. Humility is often listed as a quality of effective leadership (Alvy & Robbins, 2010), and as noted with Principal Four, a conclusion can be drawn that humility might be a personality quality that enhances or indicates social intelligence. Delving into detailed personality traits of participants was a delimitation of the study, but leads to a broader conclusion that personality traits link to principals' social intelligence and educational leadership.

The anonymity of the study design limited the opportunity to delve deeper into the details behind how the teachers in each of the four schools perceived their principals. This delimitation led to a conclusion that the mixed method explanatory approach harvested data that lends credence to deeper discussions involving these principals and teachers in their schools to examine the perceptional gap.

Restatement of the Categories of the Four Key Findings:

Educational Leadership Behavior. Most principals reported an understanding of social intelligence and believe they exhibit behavior related to social intelligence that cultivates continuous improvement with teachers. Principals and teachers emphasized a

high need for principals to understand social intelligence to strengthen leadership skills to influence teachers to continuously improve, particularly in the areas of empathy and listening. A majority of teachers responded that they value continuous improvement and indicated their principals' social intelligence behavior impacts their ability to continuously improve.

School Culture. Both teachers and principals referenced school culture as a major factor for continuous improvement. Teachers indicated that trusting their principals was essential to continuous improvement. Without trust in their principals, teachers hesitated to try new techniques necessary to learn better ways to teach. Lack of trust then rippled into untrustworthy school cultures.

Principals' Body Language. Teachers reported a substantial awareness of the impact of their principals' body language on their willingness to continuously improve. Both positive and negative body language surfaced as promoting or hindering teachers' continuous improvement. For example, principals who consistently used appropriate eye contact signaled active interest, in contrast to principals who appeared distracted and disinterested due to inconsistent eye contact.

Similar and Dissimilar Perceptions of Teachers and Principals. The teachers and principals within each school shared similar perceptions of what element of effective social intelligence is needed for each principal to lead their teachers to continuously improve. Perceptual differences surfaced where principals viewed themselves as actively listening, but their body language sent a subliminal message of distraction or disinterest to teachers. More specifically, perceptual differences surfaced in areas such as school culture, body language, word choice, and voice tone. For example, principals emphasized

specific word choice directly linking to student learning, but teachers reported misunderstandings with the messages some principals intended to convey.

Recommendations

Data informing the categories of the four key findings framed the conclusions. The conclusions then led to recommendations for educational improvements. They are organized For (a) Principals, (b) Superintendents, (c) Teachers, and (d) Institutions of Higher Education.

For Principals

Recommendation One. Examine social intelligence as explained by Boyatzis and Goleman (2008). Prioritize empathy, active listening, and body language particularly in connection to establishing trust with teachers. Explore generative leadership as outlined by Klimek et al. (2008).

Recommendation Two. Survey teachers in the context of Boyatzis' and Goleman's (2008) seven elements of social intelligence to determine their perceptions of ways the principals' social intelligence promotes or hinders their improvement. Based on these data, set achievable goals to develop specific elements of social intelligence to build leadership capacity. For example, this study data revealed principals' body language conflicted with their intent, particularly with active listening. Prioritize body language awareness with direct eye contact and facial movement to show attentiveness in conversation. In other words, learn to be actively present in conversations with teachers.

Recommendation Three. Be willing to reflect on personal leadership growth in the context of social intelligence directly linked to teachers' continuous improvement. Be willing to listen to teachers and use body language to show active listening.

Recommendation Four. Revisit the impact of school culture in the context of teachers' continuous improvement related to trust. Engage teachers in focused conversation about their role in creating a trustworthy school culture. Anonymously survey teachers to glean unbiased feedback in regards to school culture.

Recommendation Five. Examine ways the evaluation system can augment teacher improvement linked to the social intelligence of principals. The evaluation rubrics serve as a subjective guide; it is the principals who lead teachers to higher levels of performance. Build leadership capacity to successfully impact teacher improvement in concert with the evaluation system.

Recommendation Six. Combine adult learning theory with practical professional development as suggested by Drago-Severson (2009). Principals need to understand the adult learning needs of their teachers before professional development can fully impact instructional improvement.

For Superintendents

Recommendation One. Like the principals, examine their own social intelligence in the context of generative leadership as outlined by Klimek et al. (2008). Superintendents can cultivate system reform to embrace principals and teachers in the realm of generative leadership to build a generative culture.

Recommendation Two. Look closely at the factors principals reported as unnecessary external obstacles unrelated to teacher improvement. Examine ways to diminish these distractions or delegate to other personnel to manage to allow principals to prioritize teacher improvement.

Recommendation Three. Provide professional development that aligns with adult learning theory and is closely linked to expanding social intelligence to embellish leadership capacity for the principals.

Recommendation Four. Lead principals to link evaluation tools to guide teachers to authentic exemplary levels where instruction has notably improved. The evaluation tool could bring the clarity and focus to instruction that districts, parents, students and communities need to ground common discourse that all stakeholders understand to move forward with reform.

For Teachers

Recommendation One. Reflect on personal willingness to change to improve instruction. Try to determine areas possible areas of resistance and generate discussions with colleagues and principals to promote a school improvement culture.

Recommendation Two. Revisit teachers' contributions that promote a school culture for continuous improvement. Recognize and celebrate positive contributions and discuss negative factors honestly to search for solutions.

For Institutions of Higher Education

Recommendation One. Expand coursework to include social intelligence, particularly from the perspective of educational leadership. Explore ways to bring social intelligence to school administration programs for principals to better understand the impact their behavior has on teachers' improvement.

Recommendation Two. Revisit how principals are prepared to lead schools to cultures of improvement. Shifting reluctant, stagnant cultures towards continuous

improvement may be more critical and harder to achieve than previously recognized by field research.

Recommendation Three. Principals need to learn how to work with resistant teachers and strengthening their social intelligence may be a useful tool towards success. Coursework and theory pales in comparison to fieldwork, but if principals at least understand the contributions that neuroscience can make to school leadership, the chances of socially intelligent principals may increase.

Besides the key findings that led to conclusions and recommendations, the impact of the known delimitations and limitations uncovered throughout the study led to suggested further research. The next section discusses implications for further research emanating from this study.

Future Research

The delimitations revealed limitations of the study that together unveiled areas for further research. Probing deeper into the neuroscience field to extrapolate connections of the natural brain functions to social intelligence will be an ongoing research area for the neuroscientists. The findings from this study, *The Social Intelligence of Principals: Links to Teachers' Continuous Improvement,* demand that educational researchers and field practitioners stay abreast of the advances in brain research. What follows are recommendations for further research that consider three leadership aspects: (a) generative leadership, (b) gender differences, and (c) personality traits linked to motivation.

Recommendation One: Generative Leadership

The extensive examination of leadership between the business and educational sectors harshly brought forth the reality that education has yet to identify one person who epitomizes an educational leader (Kirtman, 2014). The business sector listed successful leaders who emerged over time and serve to inform educators ways to shape leadership styles (Collins, 2001; Grashow et al., 2009; Zhao, 2009). The adoption of leadership skills from the business sector has been fruitful, but most educators will agree; we are in the business of children, not product measurement.

This study illuminated that "the definition of leadership in education is elusive, with each book or policymaker defining roles differently" (Kirtman, 2014, p. 3); thus, the education field has fallen short in applying the theory of educational leadership to a person who can symbolize exemplary leadership to the world to improve American education. Klimek et al. (2008) suggested a leadership style is needed to improve schools. Specifically, generative leaders have been known to

> challenge common sense assumptions, raise fundamental questions that foster reconsideration of what is taken for granted and think creatively outside the supposed limits of a problem to identify new alternatives for action and new prospects for the future" (p. 74).

Even though Klimek et al. (2008) offered six hallmarks to develop as a lifelong practice to strengthen generative leadership skills and qualities, the authors neglected to offer a clear example of an educator who has achieved generative leadership at an exemplary level. The key finding category related to *Educational Leadership Behavior* may be the springboard in further study to discover individuals who have successfully acquired the necessary skill set to epitomize a generative leader.

Recommendation Two: Gender Differences

A more in depth study of how gender plays a role in school leadership directly connected to teacher improvement might be valuable to look at ways to address the needs of 21st century schools. Education is a predominately female profession. Further research is needed to possibly distinguish positive and negative traits typical to males and females that manifest in school settings.

Recommendation Three: Personality Traits Linked to Motivation

Inherent personality traits and social intelligence surfaced as intertwined together in many forms throughout the study. Future neuroscience research might bring forth usable findings to assist principals to cultivate elements of social intelligence that complement their natural personalities to strengthen their leadership effectiveness. Future study might disclose viable alternatives to better match principals' personalities and desires with teachers' needs. In addition, the motivation principals need to improve may be better understood if linked to social intelligence and their natural personalities.

Throughout this study I reflected often to analyze my social intelligence within the realm of my personality. My keen interest in the human side of leadership by examining social intelligence brought forth a better understanding of the linkages between principals' social intelligence and teachers' continuous improvement. By highlighting these connections, I hope this study will contribute to improving educational leadership practices in all schools.

Final Reflections

Personally and professionally I have learned ways to become a better principal. By conducting the study from the lens of an educational researcher, I see more clearly the impact principals' behavior has on teacher improvement. Until now, I could not

understand why teachers hesitated to try new things in their classrooms to help children learn. The teachers' responses helped me better understand what drives their fear and reluctance to change to improve.

The neuroscience research contributions to education is fascinating but at the same time frustrating. The conversations with participating principals highlighted their authentic desire to learn more about social intelligence to improve their effectiveness, yet social intelligence is not prioritized in the education field. The study highlighted empathy, listening and body language as primary elements of social intelligence that impact principals' influence on teacher improvement, which corresponds with the literature presented in the study.

When discussing 21st century school reform, technology also qualifies as a major piece of the ever-changing reform puzzle. But balancing the use of technology to augment instruction has quickly become an additional challenge for principals. Hence, 21st century principals now may be expected to master a myriad of devices and software. So I question, how do principals prioritize the human side of empathy, listening and body language necessary indicated by this study to assist teachers to improve? In the flurry of the technology wave, time management coupled with being able to prioritize teacher improvement emerged from all the principals. I predict principals will need strong support from their superintendents to be able to balance what is expected of them if they are to be instructional leaders.

The study also unveiled another area of interest for me: I want to know more about what motivates principals to value human interaction with teachers. The impact of the human ego was excluded from this study. If I were to replicate it, I would refine the

research questions more specifically to draw out the interplay between ego and social intelligence. Based on my personal study of the ego, I hypothesize that ego impacts leadership effectiveness much more than currently recognized.

In the end the mixed methods research approach expanded my understanding of the research process, and I now view myself as a researcher. Using both quantitative and qualitative measures was challenging, but as I pursue ways to contribute to education, I will be a better-informed researcher.

The study has heightened my understanding of what teachers need from principals to become better teachers. I now see that every teacher can contribute to improving education, and it is my job as their principal to expose their talents in a safe and trustworthy way.

Finally, I expanded my understanding of educational leadership issues to address more effectively. One of those areas highlighted through the teacher data is body language awareness, and it has become a high priority for me. I've started with a smile; and as one participating principal stated, "Real leadership is about social intelligence."

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1. Principal Survey Appendix A

My name is Joan McQuade and I am a doctoral student at Lesley University. I am conducting a study to determine what aspects of the social intelligence of principals help teachers continuously improve. Furthermore, the study seeks to better understand how the social intelligence of principals affects engagement in a continuous improvement culture among teachers. It also seeks to identify what specific social behaviors teachers need from principals in order to engage in continuous improvement. Finally, the study will guide further study on the elements of social intelligence necessary for principals to lead teachers towards continually improving instruction. The study will be conducted under the supervision of my senior advisor, John Ciesluk. The study will be in four phases. Phase one and two are included in this survey which should take approximately 20 minutes. Phase three will be an interview and phase four will be principals who wish to survey their faculty to identify possible perception gaps of the principal's social intelligence. All phases are volunteer, confidential and participants can opt out at anytime. The interview phase can be over the phone and will last approximately 15-30 minutes. It is essential that you leave contact information in the designated spot on the survey, or I cannot contact you.

My purpose behind the study links directly to my professional experience as a public school educator for 25 years, and a principal for 12 of those years. Currently, I'm a middle school principal in North Andover, MA. If you have any specific questions about the survey, I can be reached at 603-361-2760 or jmcquade@Lesley.edu. Please contact John Ciesluk, my senior advisor, at jciesluk@Lesley.edu if you have any ethical concerns

***1. Continuing the survey indicates that you consent to terms. Would you like to continue the survey? Choose your answer below and click Next.**

- ◯ Yes
- ◯ No

2. Section A Please use the definitions below to frame your responses.

For questions 2-8, please select the answer that best describes your professional experience and personal information. For questions 9 and 10, please select the answer that most closely represents your belief. Please use the definitions below to frame your responses for questions 9 and 10, and part 2 of the survey if you choose to continue.

Social intelligence: Social intelligence-is organized in two defining categories by Dan Goleman (2006): social awareness and social facility. Social awareness is what we sense about others and social facility is what we do with that awareness. In the context of the principal/teacher relationship, social awareness and facility is the behavior exhibited by the principal towards teachers in regards to improving. More specifically, "the ability to sense non verbal emotional signals, listening with full receptivity, understanding another persons thoughts, feelings and intentions, and knowing how the social world works; and interacting smoothly at the nonverbal level, presenting ourselves effectively, shaping the outcome of social interactions and caring about others' needs and acting accordingly" (Goleman, 2006, p. 84).

Teacher continuous improvement: Continuous improvement is defined as a cyclical process with recurring stages that often overlap with specific measurement indicators utilized (Duffy, 2003; Kegan & Wagner, 2006). In the context of teacher improvement in American classrooms, continuous improvement is viewed as teachers striving to improve their instruction based on the learning needs of their students; with indicators of success stemming from student achievement results, such as assessments and classroom work samples. The key concept explored in this study is continuous improvement; which results in teachers who prioritize instructional improvement above anything else, rather than sporadic, disconnected changes.

***2. What best describes your School District?**

- ◯ rural
- ◯ urban
- ◯ suburban
- ◯ charter

Page 1

***3. What best describes the level where you work?**

◯ elementary ◯ middle ◯ high school ◯ combined elem/middle ◯ combined middle/high

***4. What best describes your years of experience at your current school in the principal role?**

◯ up to three years ◯ four-ten years ◯ over eleven years

***5. Please indicate gender below.**

◯ male

◯ female

***6. Please indicate what best describes your age range.**

◯ under 30 ◯ 30-40 ◯ 41-50 ◯ 50-60 ◯ over 60

***7. What is the highest degree you have received or are working on?**

◯ Masters ◯ Working on CAGS ◯ CAGS ◯ Working on Doctorate ◯ Doctorate

***8. How many years did you teach students under 18 before becoming a principal?**

◯ never taught in a classroom for students under 18 ◯ under 5 ◯ 6-10 ◯ 11-20 ◯ Over 20

***9. Based on the definition of social intelligence included in this survey, how familiar are you with the concept? Please select the answer that most closely represents your belief.**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

***10. Based on the definitions of social intelligence and continuous improvement included in this survey, what degree do you feel you exhibit behavior that assists your teachers to continuously improve? Please select the answer that most closely represents your belief.**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

11. Are you interested in continuing the survey? If you choose no, you will be asked to answer two more questions, and then you will be guided to submit your survey.

◯ Yes

◯ No

Page 2

3. Participant is not interested in continuing the survey

***12. The social intelligence of principals is not an important component of leadership.**

- ◯ agree
- ◯ disagree but not interested in continuing

***13. Continuous improvement for teachers is not a priority.**

- ◯ agree
- ◯ disagree but not interested in continuing

***14. To submit your survey click below**

- ◯ click here to guide you to the submit page

4. Section 2

Phase 2 consists of seven questions. Question one is in the Likert scale format and the remaining six are open-ended questions. For the questions below, please respond in a way that most closely represents your belief.

***15. To what degree do you prioritize continuous improvement for the teachers to increase student learning?**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

***16. Explain how you prioritize continuous improvement in your principal's role to increase student learning,if you marked high or very high. Explain what you prioritize and why if you marked moderate or low.**

***17. Describe what behaviors you think you exhibit to your teachers to improve their teaching practice. Please shape your answers in any or all of the following categories: empathy, listening, organizational awareness, influence, developing others, inspiration, and teamwork.**

***18. Trust has been identified as a factor for effective principal leadership. If you feel you cultivate trust in your school in order for teachers to continuously improve, explain how. If not, what behaviors do you prioritize and exhibit to set conditions for teachers to improve?**

***19. Body language is an essential component of social intelligence. How do you view your body language in regards to promoting or hindering your ability to lead teachers in your school to continuously improve?**

***20. Voice tone and flexion contribute to social intelligence capacity. Describe your voice tone in regards to promoting or hindering your ability to lead the teachers in your school to continuously improve?**

***21. Word choice can shape the effectiveness of social intelligence. Explain what specific words or phrases that you use in regards to promoting or hindering your ability to lead the teachers in your school to continuously improve?**

22. Would you be interested in the interview portion of this study? If yes, please insert contact information in the box below and click Next to finish the survey. If not, please continue to Next to submit your survey.

5. Thank you and end page

Thank you for participating and dedicating your time for this survey.

1. Teacher Survey Appendix B

My name is Joan McQuade and I am a doctoral student at Lesley University. I am conducting a study to determine what aspects of the social intelligence of principals help teachers continuously improve. Furthermore, the study seeks to better understand how the social intelligence of principals affects engagement in a continuous improvement culture among teachers. It also seeks to identify what specific social behaviors teachers need from principals in order to engage in continuous improvement. Finally, the study will guide further study on the elements of social intelligence necessary for principals to lead teachers towards continually improving instruction. The study will be conducted under the supervision of my senior advisor, John Ciesluk. The study will be in four phases. Phase one and two are included in this survey which should take approximately 20 minutes. Phase three will be an interview and phase four will be principals who wish to survey their faculty to identify possible perception gaps of the principal's social intelligence. All phases are volunteer, confidential and participants can opt out at anytime. The interview phase can be over the phone and will last approximately 15-30 minutes. If you volunteer for the interview portion, it is essential that you leave contact information in the designated section within the survey or I cannot identify you for the interview.

My purpose behind the study links directly to my professional experience as a public school educator for 25 years, and a principal for 12 of those years. Currently, I'm a middle school principal in North Andover, MA. If you have any specific questions about the survey, I can be reached at 603-361-2760 or jmcquade@Lesley.edu. Please contact John Ciesluk, my senior advisor, at jciesluk@Lesley.edu if you have any ethical concerns

***1. Continuing the survey indicates that you consent to terms. Would you like to continue the survey? Choose your answer below and click Next.**

- ◯ Yes
- ◯ No

2. Section A Please use the definitions below to frame your responses.

For questions 2-9, please select the answer that best describes your professional experience and personal information. For questions 10-12, please select the answer that most closely represents your belief. Please use the definitions below to frame your responses for questions 10- 12, and part 2 of the survey if you choose to continue.

Social intelligence: Social intelligence-is organized in two defining categories by Dan Goleman (2006): social awareness and social facility. Social awareness is what we sense about others and social facility is what we do with that awareness. In the context of the principal/teacher relationship, social awareness and facility is the behavior exhibited by the principal towards teachers in regards to improving. More specifically, "the ability to sense non verbal emotional signals, listening with full receptivity, understanding another persons thoughts, feelings and intentions, and knowing how the social world works; and interacting smoothly at the nonverbal level, presenting ourselves effectively, shaping the outcome of social interactions and caring about others' needs and acting accordingly" (Goleman, 2006, p. 84).

Teacher continuous improvement: Continuous improvement is defined as a cyclical process with recurring stages that often overlap with specific measurement indicators utilized (Duffy, 2003; Kegan & Wagner, 2006). In the context of teacher improvement in American classrooms, continuous improvement is viewed as teachers striving to improve their instruction based on the learning needs of their students; with indicators of success stemming from student achievement results, such as assessments and classroom work samples. The key concept explored in this study is continuous improvement; which results in teachers who prioritize instructional improvement above anything else, rather than sporadic, disconnected changes.

***2. What best describes your School District?**

- ◯ rural
- ◯ urban
- ◯ suburban
- ◯ charter

Page 1

***3. What best describes the level where you work?**

◯ elementary ◯ middle ◯ high school ◯ combined elem/middle ◯ combined middle/high

***4. What best describes your years experience at your current school?**

◯ up to three years ◯ four-ten years ◯ over eleven years

***5. What best describes the length of your teaching experience?**

◯ under 1 year ◯ 1-3 years ◯ 4-10 years ◯ 11-15 years ◯ 16-20 years ◯ over 21 years

***6. What best describes the range of time that you have you worked with your current principal?**

◯ up to 1 year ◯ 1-3 years ◯ 4-10 years ◯ over 11 years

***7. Please indicate gender below.**

◯ male

◯ female

***8. Please indicate what best describes your age range.**

◯ under 30 ◯ 30-40 ◯ 41-50 ◯ 51-60 ◯ over 60

***9. What is the highest degree you have received or are working on?**

◯ Masters ◯ Working on CAGS ◯ CAGS ◯ Working on Doctorate ◯ Doctorate

***10. Based on the definition of social intelligence included in this survey, how familiar are you with the concept? Please select the answer that most closely represents your belief.**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

***11. Based on the definition of continuous improvement included in this survey, to what degree do you value the concept of continuous improvement in teaching? Please select the answer that most closely represents your belief.**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

***12. To what degree do you feel your principal exhibits behavior that assists you to continuously improve based on the definition included in this survey? Please select the answer that most closely represents your belief.**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

13. Are you interested in continuing the survey? If you choose no, you will be asked to answer 2 more questions, and then you will be guided to submit your survey.

- ◯ Yes
- ◯ No

3. Participant is not interested in continuing the survey

***14. The social intelligence of principals is not an important component of leadership.**

- ◯ agree
- ◯ disagree but not interested in continuing

***15. Continuous improvement for teachers is not a priority.**

- ◯ agree
- ◯ disagree but not interested in continuing

***16. To submit your survey click below**

- ◯ click here to guide you to the submit page

4. Section 2

Phase 2 consists of seven questions. Question one is in the Likert scale format and the remaining six are open-ended questions. For the questions below, please respond in a way that most closely represents your belief. For question 24, please leave your contact information if you are interested in participating in the interview portion of this study.

***17. To what degree do you prioritize continuous improvement of your instructional practice to increase student learning?**

◯ very high ◯ high ◯ moderate ◯ low ◯ not at all

***18. Explain how your prioritize the continuous improvement of your instructional practice to increase student learning,if you marked high or very high. Explain what you prioritize besides continuous improvement if you marked in the lower range. Please use the definition of continuous improvement provided in the survey to frame your response.**

Page 3

***19. Describe what behaviors your principal exhibits to encourage or to discourage you to continuously improve your teaching practice. Please shape your answers in any or all of the following categories: empathy, listening, organizational awareness, influence, developing others, inspiration, and teamwork.**

***20. Trust has been identified as a factor for effective principal leadership. If your principal cultivates trust in your school in order for teachers to continuously improve, explain how. If not, what is your perception of your principal's attitude towards building trust with teachers?**

***21. Body language is an essential component of social intelligence. Describe your principal's body language in regards to promoting or hindering your ability to continuously improve?**

***22. Voice tone and flexion contribute to social intelligence capacity. Describe your principal's voice tone in regards to promoting or hindering your ability to continuously improve?**

***23. Word choice can shape the effectiveness of social intelligence. Explain what specific words or phrases that your principal uses in regards to promoting or hindering your ability to continuously improve? If you cannot identify any, what do you wish he/she said to promote continuous improvement?**

24. Would you be interested in the interview portion of this study? If yes, please insert contact information in the box below and click Next to finish the survey. Without the contact information inserted below, I am unable to contact you. If not, please continue to Next to submit your survey.

5. Thank you and end page

Thank you for participating and dedicating your time for this survey.

Appendix C

Phase Three Interview Framework

Principals

1) Restate confidentiality and taping.

2) The following framework was used to individualize interview questions from each participant's answer from Phase Two:

    - You rated yourself as _____ in with social intelligence. Do you feel you have developed over the years? Can you give some examples of ways that you have grown your social intelligence? Do you believe you can grow social intelligence?
    - In your experience has there been external factors that have inhibited your efforts to lead your teachers to continuously improve? Central office, politics?
    - For question 17, you framed your response for _____. Why did you choose that one? Which one of these do you feel is your weakest? Strongest?
    - Closing: Are you interested in finding out what pieces of SI are important to your teachers? How you reported would be confidential, and we would frame 5 questions in Lickert scale using Goleman's work? Confidentiality for your teachers would need to be emphasized.

Teachers

1) Restate confidentiality and taping.

2) If you had to choose one of your principal's behaviors that impacts you the most to improve your practice, which would you choose? The least? Why? (Teacher survey, Question 19)

3) In reference to Questions, 21, 22, and 23, can you expand on _____? Individual written in the text based portion of Phase Two.

4) Is there anything else you would like to expand on?

Individual School Survey Appendix D

My name is Joan McQuade and I am a doctoral student at Lesley University. I am conducting a study to determine what aspects of the social intelligence of principals help teachers continuously improve. Furthermore, the study seeks to better understand how the social intelligence of principals affects engagement in a continuous improvement culture among teachers. It also seeks to identify what specific social behaviors teachers need from principals in order to engage in continuous improvement. Finally, the study will guide further study on the elements of social intelligence necessary for principals to lead teachers towards continually improving instruction. The study will be conducted under the supervision of my senior advisor, John Ciesluk. The study will be in four phases. The first 3 phases are complete and phase four will be principals who wish to survey their faculty to identify possible perception gaps of the principal's social intelligence. All phases are volunteer, confidential and participants can opt out at anytime. This is phase 4.

My purpose behind the study links directly to my professional experience as a public school educator for 25 years, and a principal for 12 of those years. Currently, I'm a middle school principal in North Andover, MA. If you have any specific questions about the survey, I can be reached at 603-361-2760 or jmcquade@Lesley.edu. Please contact John Ciesluk, my senior advisor, at jciesluk@Lesley.edu if you have any ethical concerns

***1. Continuing the survey indicates that you consent to terms. Would you like to continue the survey? Choose your answer below and click Next.**

◯ Yes

◯ No

Please use the definitions below to frame your answer

Social intelligence: Social intelligence-is organized in two defining categories by Dan Goleman (2006): social awareness and social facility. Social awareness is what we sense about others and social facility is what we do with that awareness. In the context of the principal/teacher relationship, social awareness and facility is the behavior exhibited by the principal towards teachers in regards to improving. More specifically, "the ability to sense non verbal emotional signals, listening with full receptivity, understanding another persons thoughts, feelings and intentions, and knowing how the social world works; and interacting smoothly at the nonverbal level, presenting ourselves effectively, shaping the outcome of social interactions and caring about others' needs and acting accordingly" (Goleman, 2006, p. 84).

Teacher continuous improvement: Continuous improvement is defined as a cyclical process with recurring stages that often overlap with specific measurement indicators utilized (Duffy, 2003; Kegan & Wagner, 2006). In the context of teacher improvement in American classrooms, continuous improvement is viewed as teachers striving to improve their instruction based on the learning needs of their students; with indicators of success stemming from student achievement results, such as assessments and classroom work samples. The key concept explored in this study is continuous improvement; which results in teachers who prioritize instructional improvement above anything else, rather than sporadic, disconnected changes.

***2. Dan Goleman subcategorizes social intelligence into 7 areas connected to leadership (empathy, listening, awareness of school culture, influence, developing others, inspiration and teamwork)From your perspective, please rate your administrator on these areas below in relationship to you continuously improving. Please note that all responses are anonymous to the researcher and your administrator.**

	High	Medium	low
Empathy	◯	◯	◯
Awareness of school culture	◯	◯	◯
Influence	◯	◯	◯
Developing others	◯	◯	◯
Inspiration	◯	◯	◯
Teamwork	◯	◯	◯
Listening	◯	◯	◯

***3. Body language, word choice and voice tone are also components of social intelligence. Please rate your principal in relationship to helping you continuously improve.**

	High	Moderate	Low
Body language	◯	◯	◯
Word choice	◯	◯	◯
Voice tone	◯	◯	◯

***4. Please comment below on question 2 and/or 3 to give further details regarding your answers to assist your principal with leadership growth**

Page 2

Appendix E

Principal Data in Percent and Response Count

School District

2. What best describes your School District?		
Answer Options	Response Percent	Response Count
rural	11.8%	4
urban	5.9%	2
suburban	82.4%	28
charter	0.0%	0
answered question		34
skipped question		3

School Level

3. What best describes the level where you work?		
Answer Options	Response Percent	Response Count
elementary	47.1%	16
middle	23.5%	8
high school	20.6%	7
combined elem/middle	5.9%	2
combined middle/high	2.9%	1
answered question		34
skipped question		3

Years Experience at Current School

4. What best describes your years at experience at your current school in the principal role?		
Answer Options	Response Percent	Response Count
up to three years	35.3%	12
four-ten years	44.1%	15
over eleven years	20.6%	7
answered question		34
skipped question		3

Gender

5. Please indicate gender below.		
Answer Options	Response Percent	Response Count

male	52.9%	18
female	47.1%	16
answered question		34
skipped question		3

Age Range

6. Please indicate what best describes your age range.		
Answer Options	Response Percent	Response Count
under 30	0.0%	0
30-40	17.6%	6
41-50	41.2%	14
50-60	35.3%	12
over 60	5.9%	2
answered question		34
skipped question		3

Educational Degree

7. What is the highest degree you have received or are working on?		
Answer Options	Response Percent	Response Count
Masters	35.3%	12
Working on CAGS	2.9%	1
CAGS	23.5%	8
Working on Doctorate	23.5%	8
Doctorate	14.7%	5
answered question		34
skipped question		3

Classroom Experience

8. How many years did you teach students under 18 before becoming a principal?		
Answer Options	Response Percent	Response Count
never taught in a classroom for students under 18	0.0%	0
under 5	8.8%	3
6-10	35.3%	12
11-20	47.1%	16
Over 20	8.8%	3
answered question		34
skipped question		3

Social Intelligence

9. Based on the definition of social intelligence included in this survey, how familiar are you with the concept? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	17.6%	6
high	32.4%	11
moderate	44.1%	15
low	5.9%	2
not at all	0.0%	0
	answered question	34
	skipped question	3

Continuous Improvement

10. Based on the definitions of social intelligence and continuous improvement included in this survey, what degree do you feel you exhibit behavior that assists your teachers to continuously improve? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	8.8%	3
high	50.0%	17
moderate	38.2%	13
low	2.9%	1
not at all	0.0%	0
	answered question	34
	skipped question	3

Appendix F

Teacher Data in Percent and Response Counts

School District

2. What best describes your School District?		
Answer Options	Response Percent	Response Count
rural	14.9%	7
urban	8.5%	4
suburban	76.6%	36
charter	0.0%	0
answered question		47
skipped question		2

School Level

3. What best describes the level where you work?		
Answer Options	Response Percent	Response Count
elementary	27.7%	13
middle	57.4%	27
high school	12.8%	6
combined elem/middle	2.1%	1
combined middle/high	0.0%	0
answered question		47
skipped question		2

Years Experience at Current School

4. What best describes your years experience at your current school?		
Answer Options	Response Percent	Response Count
up to three years	21.3%	10
four-ten years	53.2%	25
over eleven years	25.5%	12
answered question		47

Teaching Experience

5. What best describes the length of your teaching experience?		
Answer Options	Response Percent	Response Count
under 1 year	0.0%	0
1-3 years	4.3%	2
4-10 years	31.9%	15
11-15 years	25.5%	12
16-20 years	10.6%	5
over 21 years	27.7%	13
answered question		47
skipped question		2

Time with Current Principal

6. What best describes the range of time that you have you worked with your current principal?		
Answer Options	Response Percent	Response Count
up to 1 year	14.9%	7
1-3 years	25.5%	12
4-10 years	53.2%	25
over 11 years	6.4%	3
answered question		47
skipped question		2

Gender

7. Please indicate gender below.		
Answer Options	Response Percent	Response Count
male	17.0%	8
female	83.0%	39
answered question		47
skipped question		2

Age Range

8. Please indicate what best describes your age range.		
Answer Options	Response Percent	Response Count
under 30	10.6%	5
30-40	38.3%	18
41-50	21.3%	10
51-60	21.3%	10
over 60	8.5%	4
answered question		47
skipped question		2

Educational Degree

9. What is the highest degree you have received or are working on?		
Answer Options	Response Percent	Response Count
Masters	74.5%	35
Working on CAGS	8.5%	4
CAGS	8.5%	4
Working on Doctorate	6.4%	3
Doctorate	2.1%	1
answered question		47
skipped question		2

Familiarity with Social Intelligence

10. Based on the definition of social intelligence included in this survey, how familiar are you with the concept? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	0.0%	0
high	27.7%	13
moderate	55.3%	26
low	12.8%	6
not at all	4.3%	2
answered question		47
skipped question		2

Value Continuous Improvement

11. Based on the definition of continuous improvement included in this survey, to what degree do you value the concept of continuous improvement in teaching? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	42.6%	20
high	44.7%	21
moderate	12.8%	6
low	0.0%	0
not at all	0.0%	0
	answered question	47
	skipped question	2

Principal Behavior

12. To what degree do you feel your principal exhibits behavior that assists you to continuously improve based on the definition included in this survey? Please select the answer that most closely represents your belief.		
Answer Options	Response Percent	Response Count
very high	8.5%	4
high	40.4%	19
moderate	31.9%	15
low	14.9%	7
not at all	4.3%	2
	answered question	47
	skipped question	2

Appendix G

Tables

Table 3.1

Participation Data

Principals contacted	Phase One	Phase Two	Phase Three	Phase Four
127	34	22	9	4

Teachers contacted	Phase One only	Phase Two	Phase Three	Phase Four
331	47	20	5	41

Note. Teachers in Phase Four were only contacted for the individual school surveys

Table 4.6

Number of Principals' Strengths in each Category

Developing Others	Empathy	Influence	Inspiration	Listening	Organizational Awareness	Team-work
3	4	0	2	4	3	2

Table 4.7

Number of Principals' Growth Areas in each Category

Developing Others	Empathy	Influence	Inspiration	Listening	Organizational Awareness	Team-work
1	5	1	1	1	3	0

Table 4.12

Shared Perceptions and Perceptual Differences Between Teachers and Principals

Schools	Shared Perceptions	Perceptual Differences
School One	Empathy and listening as strengths	School Culture
School Two	Moderate social intelligence with strength in developing others	Body language & listening
School Three	Low overall social intelligence	Body Language & listening
School Four	Empathetic and Influential	Body Language

Appendix H

Principal and Teacher Data Graphs

Figure 4.1

District Type and School Level Comparison

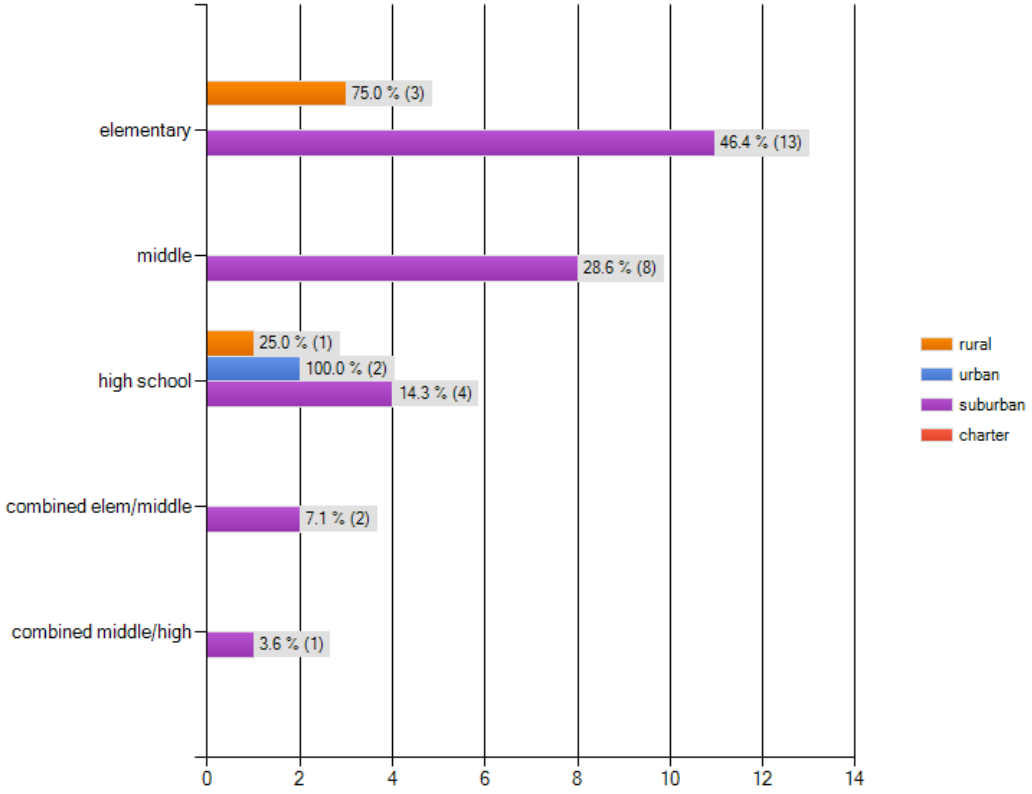


Figure 4.2

Familiarity With Social Intelligence and Educational Degree

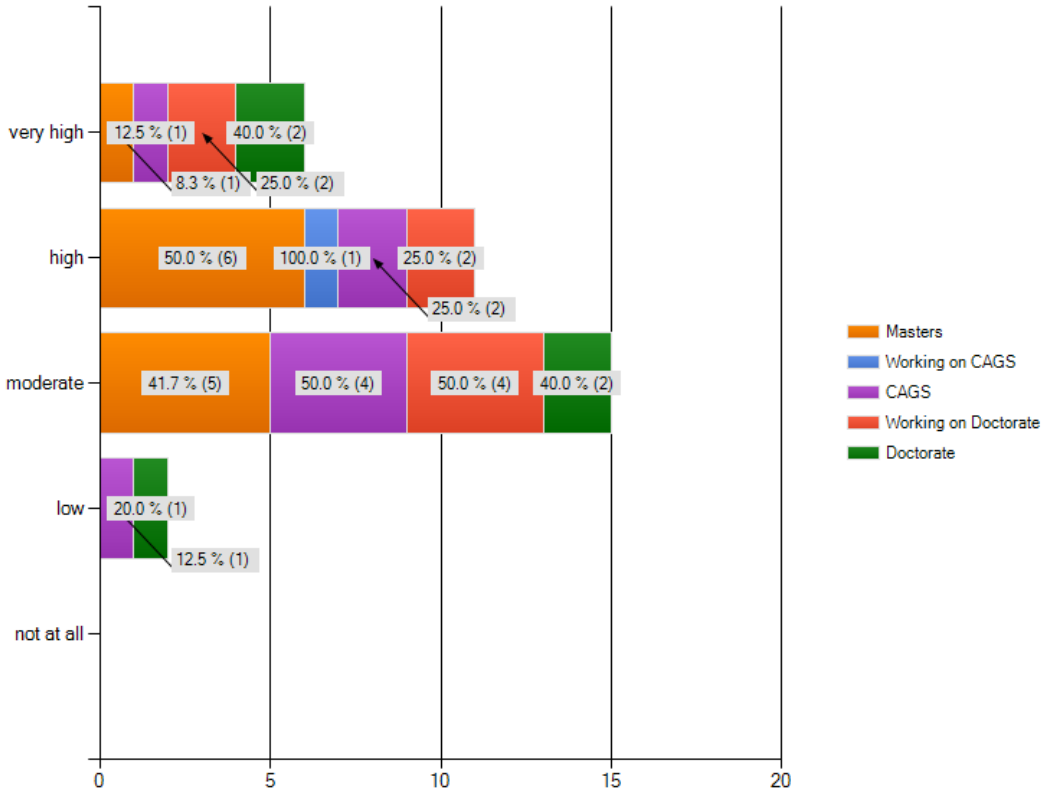


Figure 4.3

Years as Principal in Current School and Behavior to Assist Teachers to Improve

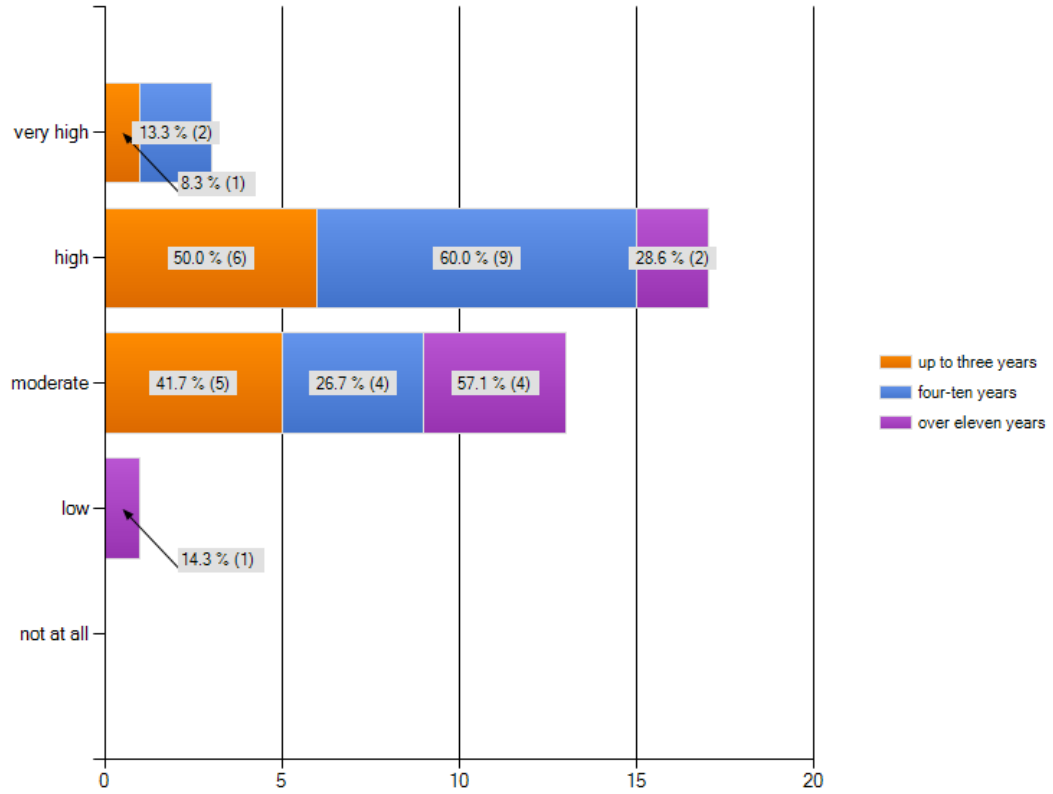


Figure 4.4

Time With Current Principal and Perception of Principal Behavior

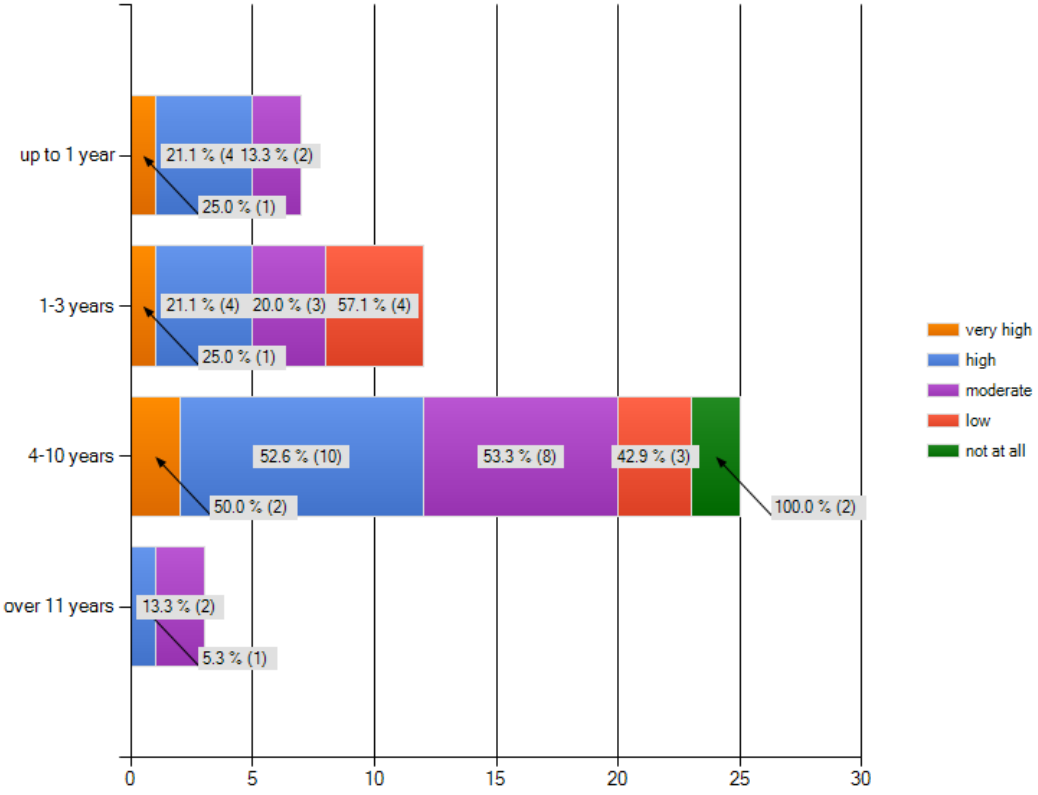


Figure 4.5

Principal Behavior and Continuous Improvement Value

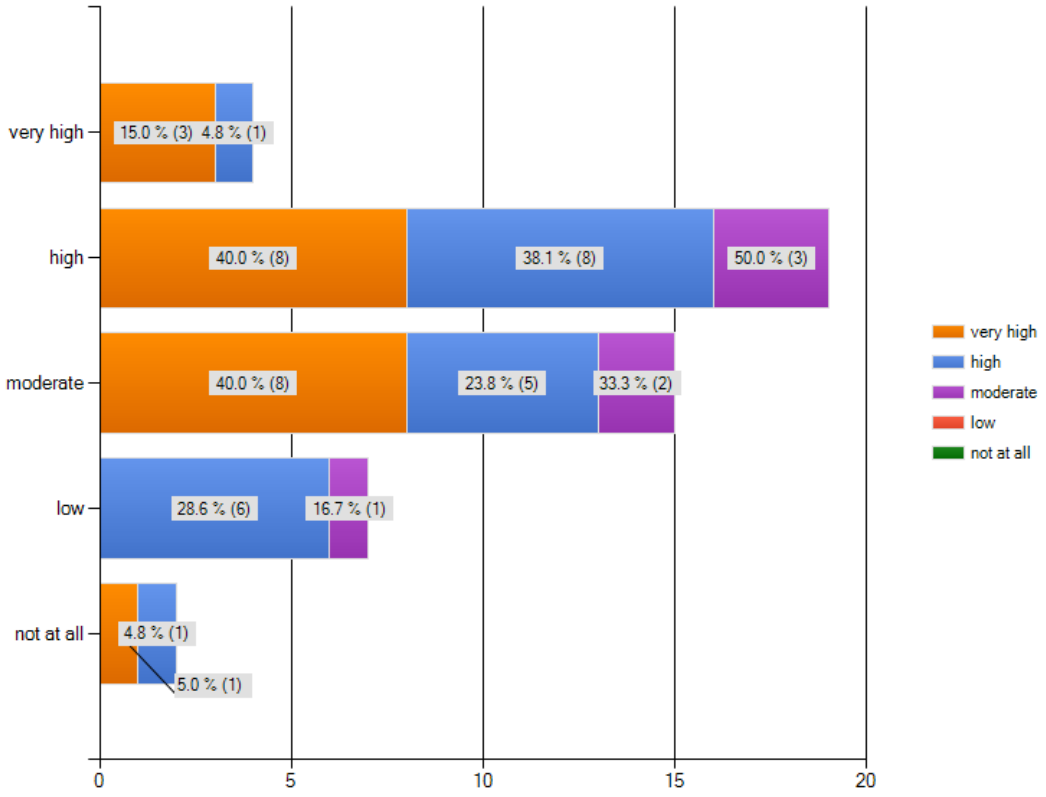


Figure 4.5. How teachers reported their principals' social intelligence behavior is shown on vertical axis, and the degree they value continuous improvement is shown on the horizontal axis.

Appendix I

School One Graphs

Figure 4.6

Seven Categories of Social Intelligence

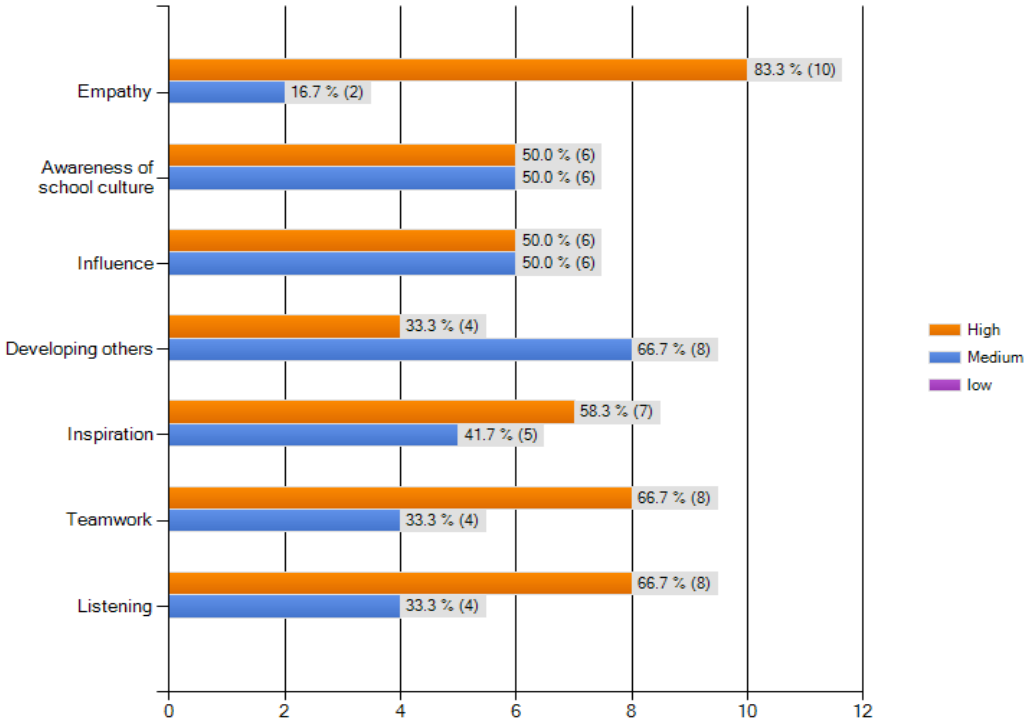
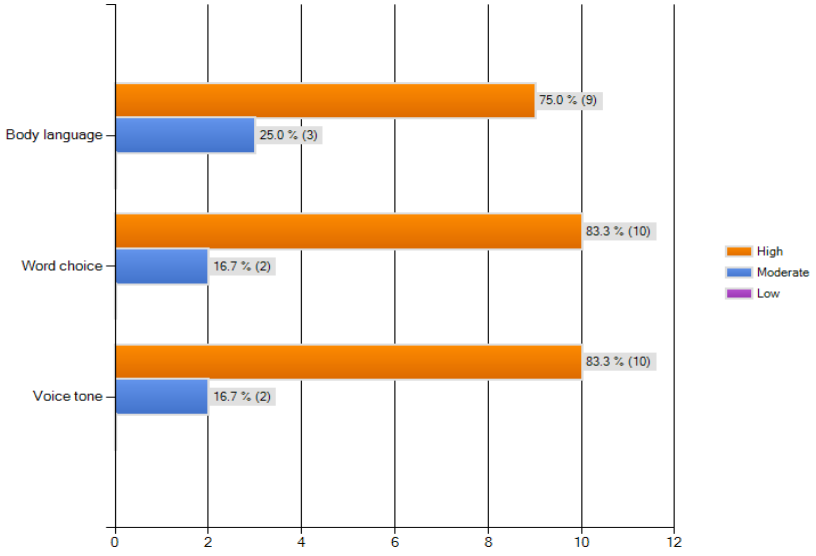


Figure 4.7

Social Intelligence Components



Appendix J

School Two Graphs

Figure 4.8

Seven Categories of Social Intelligence

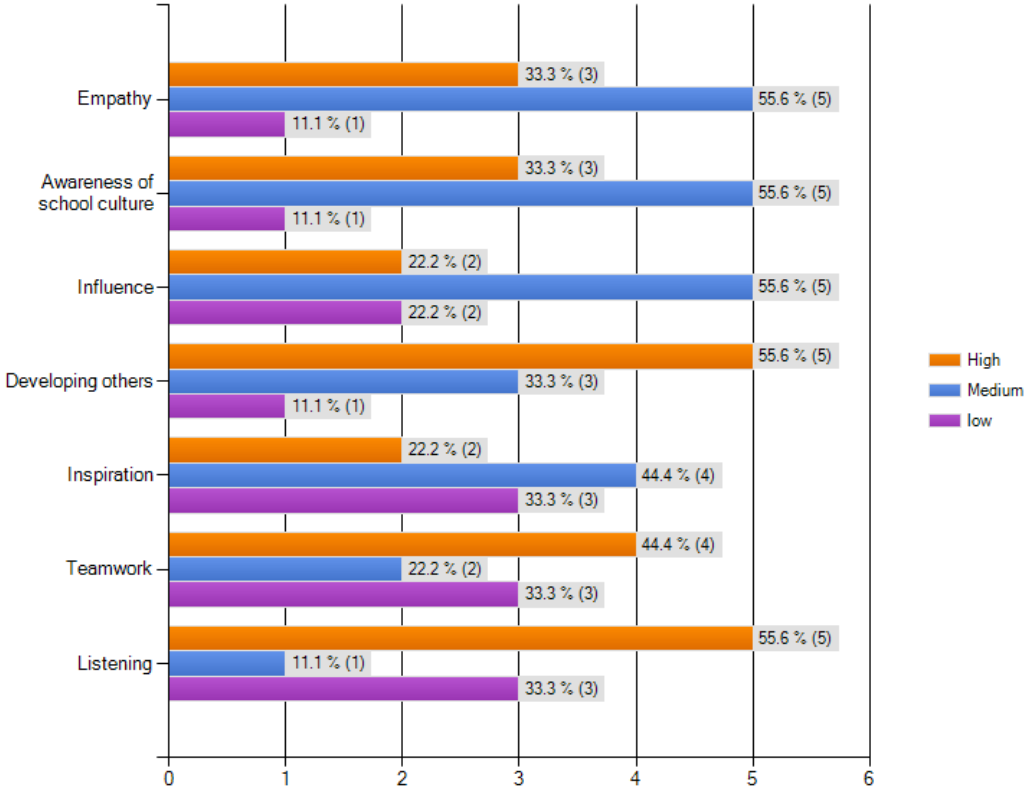
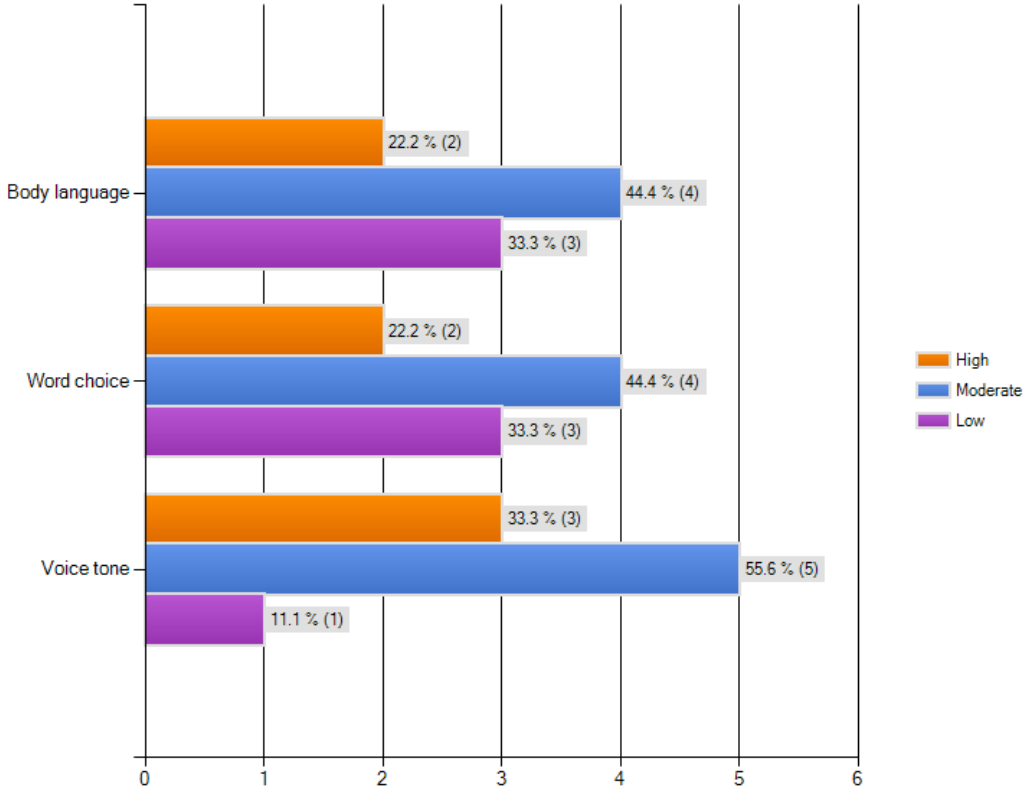


Figure 4.9

Social Intelligence Components



Appendix K

School Three Graphs

Figure 4.10

Seven Categories of Social Intelligence

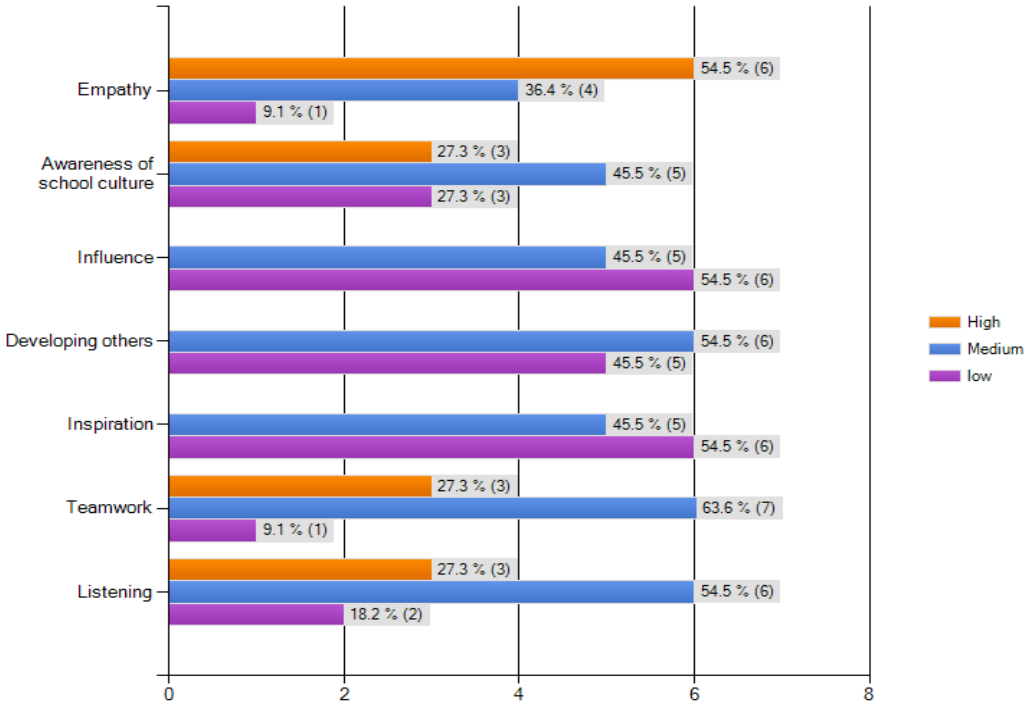
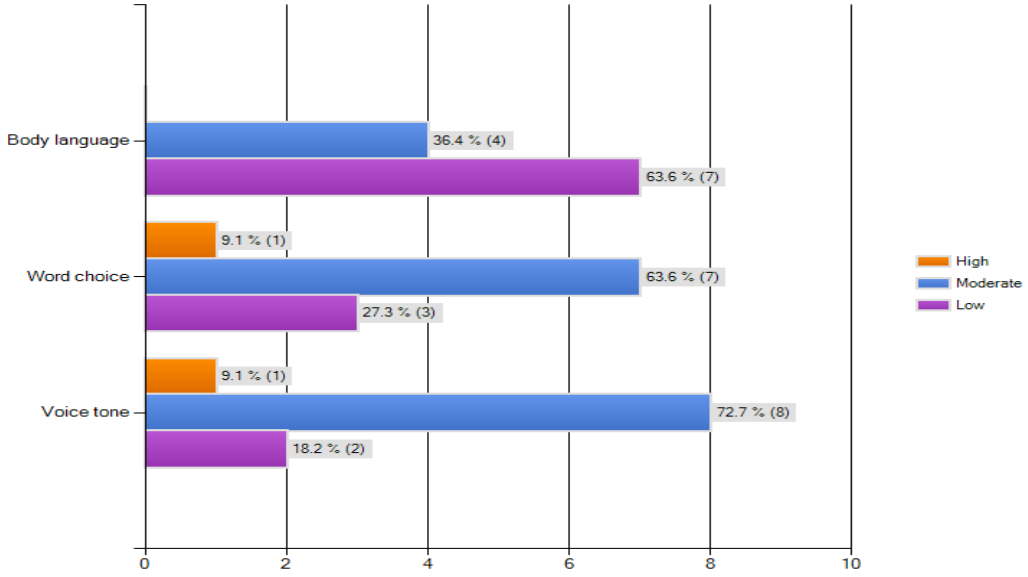


Figure 4.11

Social Intelligence Components



Appendix L

School Four

Figure 4.12

Seven Categories of Social Intelligence

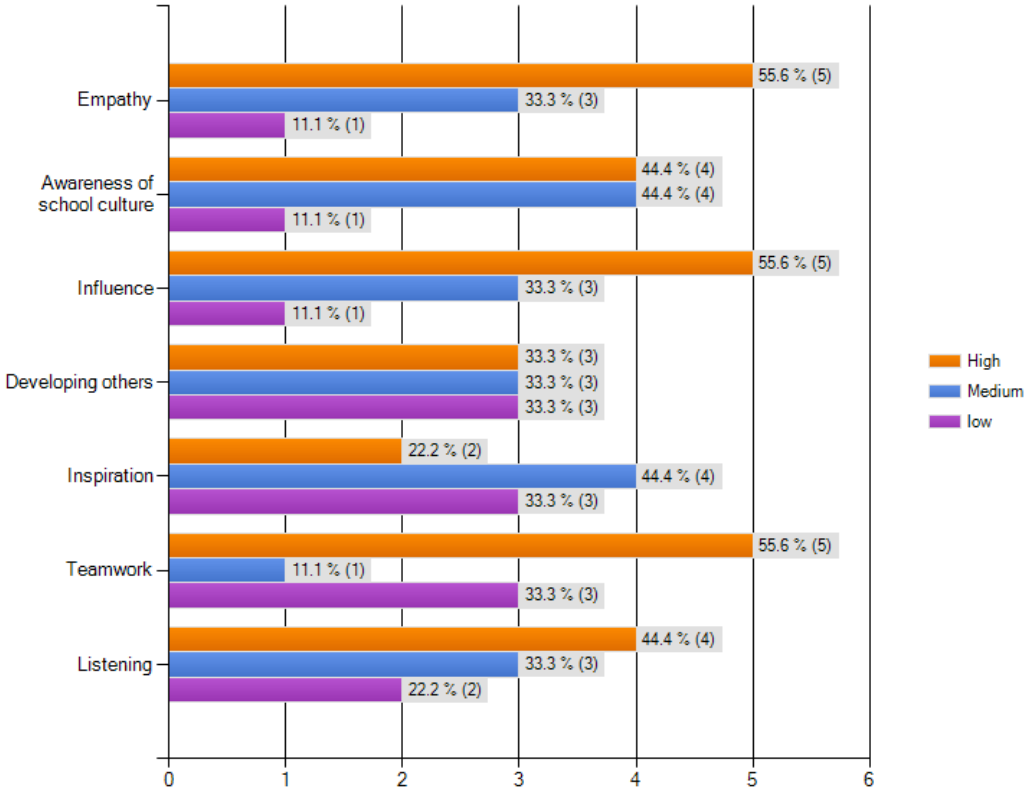


Figure 4.13

Social Intelligence Components