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Leadership Density: An Exploratory Correlational Study of K-8 Teachers' Balanced Scorecards and Perceptions of Leadership

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LEADERSHIP DENSITY: AN EXPLORATORY CORRELATIONAL STUDY OF K-8 TEACHERS' BALANCED SCORECARDS AND PERCEPTIONS OF LEADERSHIP

by

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ABSTRACT

The purpose of this study was to explore possible correlations between how individual teachers experience leadership density and their balanced scorecard totals. The literature review conceptualizes leadership density at the intersection of leadership theory and healthy school culture. Leadership density is then operationalized to a vetted theoretical framework and corresponding instrument. Existing data was derived from a public lottery-based K-8 charter school. As a balanced feedback mechanism for teachers, the site school employed an annual bonus scorecard calculator. Each teacher's balanced scorecard included academic growth, supervisor evaluation, and parent surveys.

This research aimed to expand scholarly understandings of how teachers experience leadership density through professional interactions in relation to balanced scorecard totals. Balanced teacher scorecard totals served as the dependent variable of this study. Focusing on the individual teacher as the unit of measurement, a correlational study examined whether existing leadership assessment data and balanced scorecard totals were significantly associated. Teacher responses on each section of the leadership survey were analyzed in relation to individual teacher's balanced scorecard totals. Two career variables were additionally explored as independent variables. The findings from this research were intended to generate intriguing questions, nuanced insights, and interesting connections. The results of this quantitative data analysis challenge common assumptions in two significant ways. First, a strong positive correlation was found between how teachers experience leadership density in their own role and individualized balanced scorecard totals. Second, no correlation was found between teachers' years of teaching experience or level of education and balanced scorecard totals.

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According to Ralph Waldo Emerson (1957), the love of wonder is the seed of our science. I am grateful for my father and mother for their example of bold obedience as wondering frontier-pushers. They have consistently encouraged and reminded me of that which matters most in life. I am grateful for the loving support of my beautiful wife Andrea, my lifetime partner, my truest companion, my dearest friend. It is a joy to live life in wonder, on an adventure together.

I am grateful for the teacher-leaders who have shaped me and shown me what it means to live a high-impact life as an educator through their strong personal identity and integrity (Palmer, 2010). Numerous teachers, school leaders, and professors have modeled this for me at each stage of my education and professional career. I am grateful for each of my professors at Trinity Western University and George Fox University who have graciously and patiently led and taught me as a graduate student. I am also grateful for my supportive doctoral cohort. Their intelligence, generosity, and humor were a source of consistent encouragement over these past four years. In particular, I want to thank my dissertation committee chair, Patrick Allen. The wisdom he has acquired from an impressive career as a high-profile educational leader, his skill as a graduate professor, his brilliance as a philosopher-writer, and his bigheartedness as a mentor have blessed and encouraged me tremendously.

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which I have been entrusted to implement an approach to leading and serving from core values. I am grateful for all who permitted and participated in these research efforts.

I am grateful for the perspective and purpose I have learned from the words penned and lives lived by magnanimous leaders and thinkers that have gone before me. I love how Charlotte Mason (2012) properly and succinctly positioned the researcher as a pupil of reality: “One discovers a thing because it is there, and no sane person takes credit to himself for such discovery” (p. 27-28). To whatever extent my exploration in this study has uncovered fresh meanings, ponderings, or insights I acknowledge that my role has been that of a student of truth.

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CHAPTER 1

INTRODUCTION

Parker Palmer (2010) asserted that transformational impact in education flows from the teacher's personal identity and integrity. This idea has led me to reflect upon those forces that have shaped my identity as an educator. My experience with education has been colorful. From fourth grade until I was sixteen, my humble schooling took place within the simple cinderblock walls and open halls of the Portuguese-speaking Brazilian state school in the rustic town where I grew up. Then, for the first five years of my career as a teacher I returned to the southern hemisphere and served students from dozens of nationalities at a vibrant international school in a bustling megalopolis of over 20 million residents. These experiences broadened my view of the world, deepened my sense of purpose, and provoked me to better understand my identity as a person. Experiences that lead to reflection and growth occur sporadically throughout a lifetime. Yet, some experiences are more momentous than others. Some experiences have a way of purifying one's integrity like gold that is tested in a metal smith's fire.

One of the most stretching professional experiences in my career happened when I only had a total of 14 months experience as a fulltime K-12 school administrator. I was an assistant principal at a school of around 700 students, situated in one of the most scenic regions of the great North American West. The announcement that tipped the first domino came at a public meeting in the school library. It was a moment in time around which the future of our learning community would pivot. Overnight, we lost the leadership of our principal, my direct supervisor, the head of our school. Teachers were confused. The directionless staff expressed feelings of grief and anxiety. School Board members compared that time to a natural disaster, a perfect

storm. I had to dig deep. We had lost our pilot and now had to do our best to keep the course until the end of the school year while navigating through dark clouds of fear and uncertainty. With an empty captain's seat, we could hope only for a merciful crash-landing.

The journey since that landmark event has been one of emotional healing, intellectual perplexity, and transformational change. Many of the assumptions I held about leadership, trust, and communication within a school were challenged or reformed. They continue to turn in my head and heart, as I gradually understand a bit better each year the role of leadership in education. I consider this search for understanding a joy – and a very applicable joy at that. I am now entrusted with the responsibility of leading this recovering school community as principal, my first time to ever serve in this role. As the new, inexperienced head of a school that is still in a critical transition phase, I must study its needs, honor its history, care for its wounds, and draw it toward a worthwhile future.

For so many reasons I am grateful for this tremendous opportunity, particularly at this time. We have inherited a solid cultural foundation upon which to build. Many of the leadership practices and philosophical underpinnings that have been established are honoring to teachers and empowering of staff. Moreover, my fledgling school already collected rich, fascinating data, which until recently has sat safely and uselessly in files, begging to be analyzed and explored. I found myself in a providentially strategic position: I was a young principal seeking to better understand the unique dynamics of my school with access to riveting and relevant data that were underutilized and only partially understood. So, I was driven to explore these data anticipating that insights gained could inform how I spend my time and energy on a daily basis in my labor for growth.

Growth begins, according to Charlotte Mason (2012), with curiosity and humility. A curious hunger to be part of something better must drive us to understand more accurately the nuances of leadership within the schoolhouse; and then, to reflect upon our attitudes and assumptions about the school as a whole and our place within it (Sergiovanni, 2002). That same hunger must drive us toward greater humility – to set aside wrong notions and habits, realizing that their unintended consequences have rebounding effects upon the organization's most important stakeholders (Duhigg, 2012).

Principles shape practice. Candid reflection upon the "comprehensive framework of one's basic beliefs" (Wolters, 1985, p. 5) is a relevant and vital process from which no one is exempt. A person's behavior is guided by underlying motives, and motives are contingent upon incumbent beliefs. Wolters (1985) concludes that everyone operates from an overarching outlook on life, "however inarticulate he or she may be in expressing it" (p. 5). Every experience a stakeholder has within the school is downstream from either accidental assumptions or core convictions. Paraphrased yet again: beliefs shape behavior (Palmer, 2010). Whether deliberately selected or unintentionally propagated, highly consequential beliefs about leading, teaching, and learning dictate professional behaviors (Sergiovanni, 2002, 2004; Geller, 2009). Choices made by school leaders have reverberating consequences. Nonetheless, haphazard assumptions often trump strategic reflection (Laub, 2003). As a result of what I have experienced in my career as well as what I have understood through the literature on this topic, I have wondered whether my school's existing data could shed a helpful light on these intriguing dynamics.

Specifically, I set out to better understand through this study whether connections exist between two extant data sets utilized by my school. The first data set was individual teachers' bonus scorecard totals, calculated using a balanced feedback mechanism that my school

developed to provide teachers with formative growth opportunities each year. The second data set was a layered indication of how individual teachers experienced professional interactions, collected by the school to diagnose the organization's health.

Traditional views of leadership have tended to focus on the solo acts of a charismatic hero. However, more holistic theoretical models continue to challenge and enrich such narrow definitions of leadership. A relatively recent participatory leadership model is distributed leadership (Bush, 2011; Crawford, 2012). While this model properly shifts the focus away from the actions of a solo leader, it still falls short in my perspective. Distributed leadership as a theoretical model is lacking by my estimation because it implies a limited supply of leadership, doled out until there is no more to go around. Rather, I prefer a term Bush (2012) used in a brief editorial on the topic of teamwork: *leadership density*, which connotes an increasing capacity. From my vantage point, distributed leadership evokes images of scarceness, while leadership density implies abundance.

This study embraces the metaphor of leadership as calcified bone. German anatomist Julius Wolff was the first to explain why a bone is unlikely to break twice in the same place (Novotny, Warren, & Hamrick, 2015). Through the healing process, the walls of the fracture calcify. The bone density in that location increases, and it becomes even stronger than it was before breaking. This idea of increased strength through the healing process was a life-giving image for me; a reminder for my school community to press on toward a brighter future.

Throughout this work, I refer to leadership density as the ideal that teachers and administrators should strive toward. The goal of leadership density is educator effectiveness, and its uniting themes are school culture and participatory leadership.

The idea of leadership that values listening, mutual respect, high trust, clear direction, authenticity, empowerment, community, and accountability for outcomes (Laub, 1999; Sergiovanni, 2002, 2004) agrees with findings relating to positive school culture (Palmer, 2010; Barth 2002).

The concept of leadership density has engaged, sustained, and energized me throughout my career in education – from teacher and coach, to teach-mentor and athletic director, to assistant principal, to head of school. Along the way, I have wondered if the way a teacher experiences leadership could be related to his or her overall individual effectiveness as a teacher. School leaders and researchers recognize the paradigm shift educational theories are facing and are seeking to better understand the relationship between leadership approaches to valued metrics (Gronn et al., 2010). My scholarly suspicion was that schools lacking leadership density might suffer from organizational osteoporosis, in this sense. If so, what could a school's level of leadership density ultimately mean for students and teachers? Could it be that teachers' balanced scorecard totals rise or fall in proportion to the level at which they experience leadership density?

Purpose of the Study

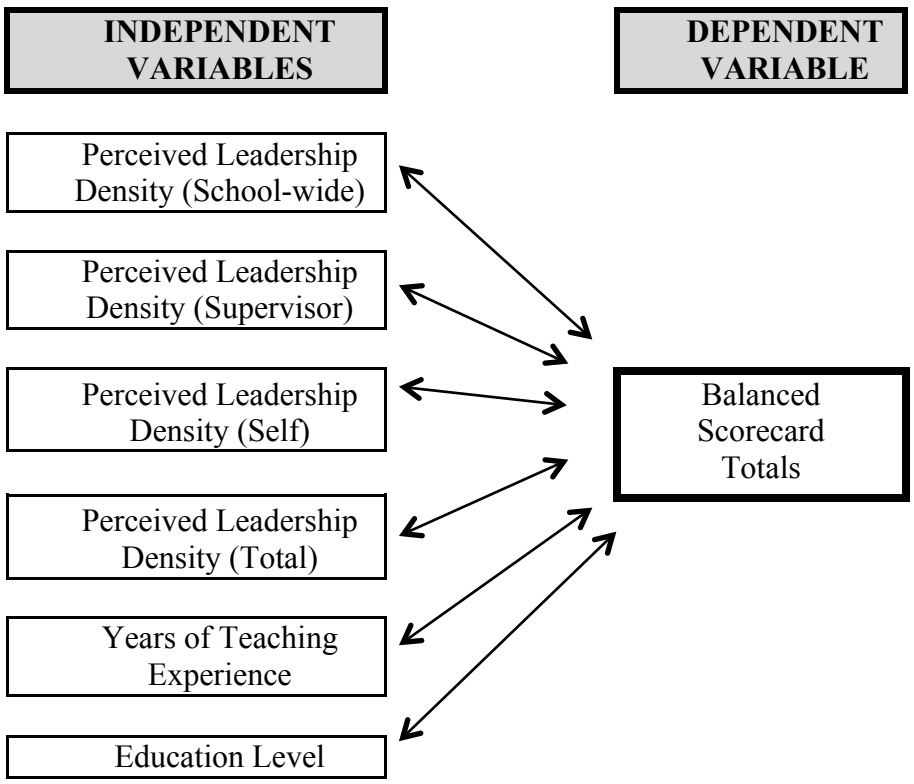
This study conceptualizes leadership density at the intersection of participatory leadership theory and healthy school culture. The purpose of this study was to generate evaluation questions for further academic research based on possible correlations between the way K-8 teachers experience leadership and their individual balanced scorecard totals. The aim of this study, therefore, was not to produce generalizable findings that test existing theories, but rather to explore these relationships and suggest further research.

Statement of the Problem

Teacher effectiveness is a shared goal around which all of a school's stakeholders can rally. Yet, variables that contribute to educator effectiveness are deceptively complex and virtually impossible to isolate. Moreover, my school had already collected interesting but unexamined data; data that held the potential to reveal fascinating insight into questions relating to teacher effectiveness. Focusing on the individual teacher as the unit of measurement, a correlational study examined whether existing leadership assessment data and balanced scorecard totals were significantly associated. Findings from this research generated intriguing questions, nuanced understandings, and interesting connections that expand the scholarly understanding of how teachers experience professional interactions in relation to individual balanced scorecard totals.

Figure 1 depicts the possible associations, indicated by the arrows, between the six independent variables and the dependent variable of interest to this research.

Figure 1: Visualizing Potential Statistical Associations



Definition of Terms

The terms and their definitions are included at this point in the study with the aim to clarify meanings, summarize intended connotations, distinguish between differences, and state the contextual purpose of each. These terms were chosen because of their relevance to key variables explored in this research.

Balanced teacher feedback:

For formative growth, teachers receive balanced feedback annually as a holistic representation of their effectiveness. It includes triangulated data from three or more sources that are relevant to key stakeholders, such as students, supervisor, and parents,

though these categories are weighted differently. For the site school, balanced teacher feedback feeds into an individualized annual bonus scorecard calculator for each teacher (see Appendix A).

Ethos:

Implies meanings on two levels: group and individual. In the first sense, ethos is the distinctive culture of a community manifested in its beliefs and aspirations. Secondly, ethos is a rhetorical mode of influence based on one's character and credibility. For the purposes of this study, ETHOS serves as the site school's pseudonym.

Leadership density:

The cornerstone concept of this study, upheld as the ideal toward which teachers and administrators should strive. Leadership density both contributes to and is expressed in a positive school culture. While a school's health is evidenced in its culture, leadership density creates the conditions for such a culture. In this research, I conceptualize leadership density as Laub's (1999) six leader dispositions and behaviors that predict organizational health: displaying authenticity, valuing people, developing people, building community, providing leadership, and sharing leadership. I operationalize leadership density as each of the sections of Laub's (1999) Organizational Leadership Assessment (OLA), which was employed by ETHOS to diagnose its health. Leadership density was measured by teacher responses on each section of the OLA. Participant responses indicated their perception of leadership density on each dimension: as evidenced school-wide, as displayed by school administrators, as experienced by the teacher, and as an aggregated total.

Parent survey:

A tool utilized by schools and districts to listen to the voice of this important category of stakeholders regarding the professionalism, communication, and overall effectiveness of individual teachers. ETHOS developed its own parent survey, with teacher input, and invites parents to complete it at the end of each school year (see Appendix B). A teacher's score on this survey populates a portion of his or her individual bonus scorecard (see definition of balanced bonus scorecard).

Balanced bonus scorecard:

A tool utilized by schools and districts to align values and desired outcomes with the monetary compensation of staff members, typically in the form of a bonus. ETHOS developed its bonus scorecard calculator with teacher input as a balanced feedback mechanism (see Appendix A). The bonus score served as the dependent variable for this study. This research refers to teachers' bonus percentage scores as *balanced scorecard totals*.

Public charter school:

Charter schools provide innovative approaches to public schooling that uniquely incorporate the values of local autonomy, individual choice, and laissez faire economic theory. In April of 2013, over 40,000 student names were on waitlists for Colorado charter schools (Carpenter, 2013). As part of the state's public education system, charter schools do not charge tuition or use discriminatory enrollment practices. Charter schools serve a broad range of diverse students, including low income, racial and ethnic minorities, and students with disabilities or other special needs. There are no test-in requirements to attend a charter school. Charter school students must participate in state

assessments. Charter schools are subject to the federal No Child Left Behind (NCLB) Act, including this Act's requirement for teachers to be "highly qualified."

School culture:

A school's culture is the aggregate expression of the predominant themes manifested in its rituals, core values, commonly used metaphors, and symbols. School culture can be positive or negative, strong or weak. An important step toward leading the community to carry out its stated mission is to understand the subtle forces that contribute toward shaping a healthy school culture – namely, the attitudes and commitment levels of its stakeholders (Barth, 2002).

Supervisor evaluation:

A tool utilized by schools and districts to evaluate teacher effectiveness in several key areas. ETHOS developed its supervisor evaluation tool with teacher input (see Appendix C). A teacher's score on the supervisor evaluation tool populates a portion of his or her individual bonus scorecard (see definition of balanced bonus scorecard).

Limitations and Delimitations

This study was conducted within a number of limitations inherent to using existing data sets and a correlational research design. First, only data previously archived by ETHOS could be analyzed. Additionally, the balanced bonus scorecard that ETHOS uses as a feedback mechanism lacks evidence of validity. This limits the generalizability of findings involving this data set. However, the scorecard is utilized by the site school and was therefore relevant to the exploratory purpose of this data-analytic study.

A further limitation was that the data sets could only be analyzed with respect to the way that they were coded. Specifically, Laub's (1999) Educational Version of OLA (see Appendix D)

is a reliable, vetted, and widely used instrument that coded item choices in such a way to be consistent and valid in all English-speaking educational settings. Next, total population size was limited to the existing data sets at the school site. Only data that I considered to be ethically gathered, relevant, reliable, comparable, and of potential value to this study was used. Finally, the process and terminology that ETHOS utilized to develop and weight each component that informed teachers' balanced bonus scorecards was part of that organization's history. The function of this research was to analyze each teacher's archived percentage totals.

Given the focus of this study, it was delimited by the characteristics of the site school in several ways. First, the proposed K-8 school utilized a balanced scorecard that included three sources of teacher feedback. Additionally, school administrators employed Laub's (1999) Educational Version of OLA (see Appendix D) and agreed to code and share the relevant data. High school and higher education levels fall outside of the scope of this study. Finally, this study focused only on one school's data set collected over the course of one school year.

Further unique aspects of the school site must be considered in reference to the transferability of findings. ETHOS is a lottery-based public charter school without teacher tenure or unions. School administrators have full autonomy over the hiring and retention of all staff members. With strong teacher participation, the ETHOS staff developed their own in-house supervisor evaluation, parent survey, and balanced feedback mechanism. The school has an independent governing board that operates within its authorizing district's guidelines. Each of these characteristics limit the transferability of findings from this research to schools that share a comparable context to that of ETHOS. Further, the correlational nature of this study prohibited the possibility of predictive conclusions to be drawn from the analysis.

Summary

Given the prevalence of erroneous assumptions, the tenor of discussions about accountability, and the thirst for helpful insights on the subject of leadership for teacher success (Earley et al., 2012; Harris, 2013; Ubben et al., 2015), fresh findings relating to a balanced teacher feedback mechanism are in high demand (Arifin, 2014; Kaplan & Norton, 2001; Kaplan, 2002). The purpose of this quantitative research was to better understand the way a teacher experiences leadership density in relation to teacher effectiveness, as reflected in the site school's balanced scorecard totals.

Educational effectiveness correlates with strong, positive, healthy organizational culture (Black, 2010; Bryk & Schneider, 2003). My conceptualization in this study situates healthy school culture as the fruit of leadership density. This exploration sought to narrow in on the roots of leadership density by investigating specific associations between teacher effectiveness and perceptions of leadership density. Specifically, this study conducted zero-order correlation coefficient analyses of existing leadership assessment data and balanced scorecard totals. Findings generated by this research highlight which perceptions of leadership density have the strongest correlation to individual teachers' scorecard totals. These findings provide teachers, administrators, researchers, university faculty, and policymakers with valuable insights for strategic focus.

CHAPTER 2

REVIEW OF THE LITERATURE

Historically, literature on the topic of leadership originated from military and business contexts (Gardner, 1990). Attitudes, approaches and assumptions borrowed from other fields, however, are not directly compatible or transferable to the reality of the schoolhouse. Nonetheless, the importance of leadership for learning is unquestionable. At every level of the educational community – from the school board to the classroom – effective leaders cultivate community, unite stakeholders around shared values, protect a positive culture, and create opportunities for other leaders to develop.

Positional leaders such as the board president, the superintendent, the principal, deans, and assistant principals can certainly cap a school's ability to perform at high levels. The role of such leaders is undoubtedly strategic and can be leveraged for long-term impact. Yet, teachers hold a unique position of influence within a school. Teachers' perception of their school's identity, values, and priority outcomes are invaluable because teachers represent the heartbeat of the organization. They deliver the school's shared mission and values on a daily basis (Wiggins and McTighe, 2007). The attitudes and leadership practices of teachers shape the ethos of the school community (Sergiovanni, 2000; Palmer, 2010), which in turn predicts student learning (Peterson & Deal, 1998).

Because learning and growth occur within the context of an educational community, collaborative, people-centric leadership theories are more fitting with education than autocratic or industrial models (Sergiovanni 2000, 2002). One such theory is servant-leadership, a counter-intuitive approach to producing transformation. This approach to leading is counter-intuitive

because servant-leaders view trust, compassion, and humility as strengths. Rather than fear, authoritarian power-wielding, and self-perpetuating decision-making, influence is earned relationally.

The literature review situates this research within its proper theoretical and scholarly context. The first section of this literature review further conceptualizes leadership density: rooted in leadership theory and evidenced by the fruit of positive school culture. Next, a theoretical analysis evaluates Laub's (1999) OLA instrument as a measurement of individual teacher's perceptions of leadership density. Specifically, this literature review explores whether a fitting theoretical framework and a corresponding instrument exist to measure individual teachers' perceptions of leadership density. The final section of this chapter synthesizes academic findings and theories relating to balanced approaches to providing teachers with feedback for continuous improvement.

Due to the interrelated nature of these conceptual factors, which variable is upstream from the other is not easily discernable. For instance, does leadership density precede positive school culture or might it be a byproduct thereof? The literature review primarily focuses upon the theoretical content and scholarly context of each concept. The in-depth treatment of the relationships among these variables will be reserved for the methodological portion of this study (see Chapter 4).

Definitions and Descriptions of Leader Dispositions

Seldom do practitioners pay sufficient attention to the impact of leadership dispositions and behaviors (Palmer, 2010). As a result, many schools are limited by the personal constraints of dominant position-holders (Sergiovanni, 2002). In order for schools to overcome this

tendency, it is necessary to identify which leadership behaviors and dispositions are desirable in a school and which contribute to increasing a school's effectiveness (Bush & Glover, 2012).

Servant-leadership is a counter-intuitive theory that upholds the value of leader dispositions. It can be traced as far back as the classical era when Jesus of Nazareth declined the public pronouncement of his kingship and rather picked up a towel to wash the feet of his disciples. Mohandas Gandhi, in similar fashion, did not affect change through his practice as a lawyer, but instead showed the world through his personal example what it meant to selflessly labor for the common good, hold the moral high ground, and protest injustice peacefully. More recently, Robert K. Greenleaf (1977), a self-made industrialist, described his approach to business management as servant-leadership. His inspiration was found in Hermann Hesse's (2003) fictional account of a Sherpa-styled guide named Leo who accompanied a group of European travelers through exotic eastern lands. In Leo's absence, the voyagers began to unravel and quickly realized that Leo was much more than a mere servant – he had led the group without a positional title yet masterfully held the company together through his subtle presence and gracious actions. As a result, all experienced joy, safety, and success on their expedition.

Numerous scholars have attempted to identify key dispositions and behaviors of servant-leadership theory for educational settings. For example, Laub's (1999) assessment of organizational leadership draws upon the perceptions of educators. Participants report on the regularity of servant-leadership qualities and practices within their organization. Black (2010) effectively assessed servant-leader dispositions in the context of schools using Laub's assessment tool and found that a strong, positive correlation exists between leadership practices and school culture: the more servant-leader dispositions were evidenced, the more positive the school climate.

Leadership Density

School culture is an indication of the overall satisfaction and morale of the learning community. Effective schools promote a positive culture, cultivate leadership density, and involve stakeholders throughout the organization. If a sufficient link exists between teacher perceptions of leadership and their respective scorecard totals, cultivating such qualities of mind and soul at every level of the organization can become a strategic focus for ongoing school improvement.

In this study, I conceptualize leadership density at the intersection of leadership theory and school culture. This concept is grounded, rooted, and established in leadership theory. The relationship between leadership density and school culture, however, is more dynamic: each contributes to the other while simultaneously serving as evidence of the other. Namely, in positive school cultures, teachers are treated as respected and highly valued leaders. Figure 2 illustrates the relationship among these components (Barth 2002; Laub, 1999; Sergiovanni 2000, 2002).

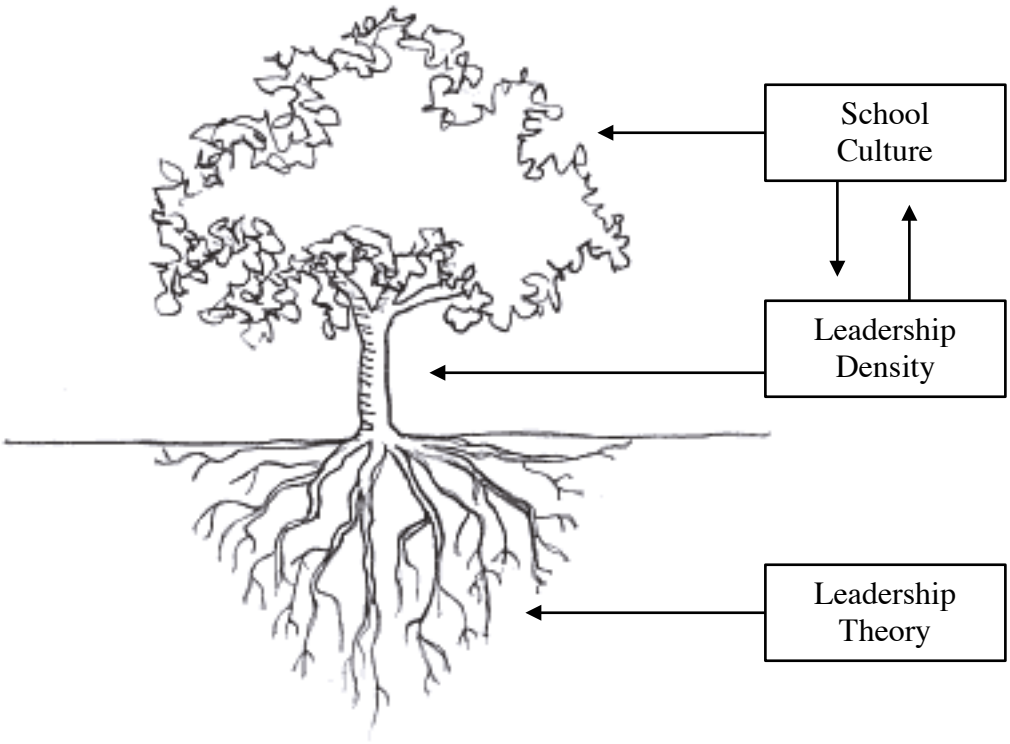


Figure 2: Conceptualizing Leadership Density in Relation to Leadership Theory and School Culture

The leadership theories that align most closely with this study's conceptualization of leadership density are those that emphasize listening, mutual respect, high trust, clear direction, authenticity, empowerment, community, and accountability for outcomes (Barth, 2002; Laub, 1999; Palmer, 2010; Sergiovanni, 2000, 2002). This does not sidestep the need for order and executive decision-making. It does, however, maintain a high view of teachers as valuable professionals and co-leaders that have an immeasurable impact upon students and the school community.

While authentic leadership and transformational leadership theories capture some desirable elements, both tend to over-emphasize leader moves – the leader's actions as opposed

to stakeholder outcomes (Northouse, 2015). This tendency is particularly problematic because this same limitation is readily detected in the relationship between a classroom teacher (as leader) with his or her students (the stakeholders). A teacher may put on a dog-and-pony-show that is very entertaining. However, if the teacher's circus act does not produce desirable outcomes for students, it can hardly be considered effective. Similarly, by focusing on the impressive displays of charismatic leaders (those described by authentic leadership and transformational leadership theories), transcendent, lasting, and worthy outcomes that matter most for teachers can be all too easily neglected.

Metaphors are vital for meaningful thinking and practice. They picture and paint ideas in the mind's eye (Badley & Van Brummelen, 2012). The metaphors people use affect their outlook, which in turn shapes their behavior. All metaphors make people susceptible to the Pygmalion effect, whereby positive connotations predict increased performance (Bromley, 2014). The Pygmalion effect was named after a Greek myth about a sculptor whose love for his statue grew as he carved its beautiful features. Rosenthal and Jacobson (1968) published a now-classic study that identified the Pygmalion effect at work in the classroom. The language teachers used to refer to groups of students predicted student performance. I wonder if the same effect could be true of metaphors for leadership within the school community.

Leadership Theory

Distributed leadership is a theory that shares common ground with the concept of leadership density (Northouse, 2015), however their connotations are significantly different. Distributed leadership implies that leadership is a scarce resource that must be shared. Similarly, it implies that positional leaders are the default proprietors of this precious commodity called leadership, with the power to distribute or withhold it where they please. Thus, the concepts of

shared or distributed leadership produce connotations that are counter to my intended meaning in this study, leaning to the demand-side of organizational economics where the squeakiest stakeholder wheel gets a larger dose of leadership grease. By contract, leadership density connotes multiplication, as in the metaphor of bone calcification through the post-fracture healing process. In this sense, I wonder if the concept of leadership density within the schoolhouse could replace a fear of scarcity with a mentality of abundance.

The attributes and actions of leaders can shape and steer the ethos of schools, creating an environment of trust, stability, hope, and a commitment to continuous improvement (Tschannen-Moran & Gareis, 2015). The vernacular meaning of *ethos* typically connotes the distinctive culture of a community. Yet the classical, Aristotelian connotation also implies an individual's credibility based upon competence and character (Pelling, 2012). Both understandings of ethos are of interest in this study. The influence of leaders must be based upon competence, character, and credibility, which in turn influence the quality of a school's culture.

Leaders exist at all levels in the educational community. More so than any other organization, schools have in their teaching staff great potential leadership that is often untapped (Lambert, 2002). This potential leadership can be cultivated and unleashed in powerful ways by school administrators who embrace and embody a servant-first approach. When principals exhibit servant-leader behaviors and dispositions, teachers' moral literacy increases within the classroom and the school (Crippen, 2010) and teachers report higher satisfaction at work (Cerit, 2009). In his contribution to the field of leadership, John Gardner (1990) noted how transformational leaders can produce lasting change that touches individual constituents as well as the organization as a whole through a personal display of charisma, a focus on mission, and perceived courage as demonstrated by risk-taking.

Given the importance of leadership practices, identifying the dispositions and behaviors that are desirable for every educator within the school becomes a strategic point of inquiry. Teachers that lead students patiently and tailor questions to individualized needs and constraints produce a transformational emancipation of the learner (Geller, 2009). Administrators' attitudes and actions that are perceived to contribute to positive working relationships include: a personal investment in initiatives, setting the expectation for and supporting collaboration, and behaving consistently (Taylor, 2010). Similarly, when supervisors communicate affirmatively, encourage teacher self-efficacy, and practice servant-leadership, they contribute to increasing the effectiveness of teachers (Steele, 2010).

While other theorists have attempted to summarize interdisciplinary studies of leadership behaviors into similar categories, leadership density specifically finds satisfactory expression in Laub's (2003) framework. Laub identifies six dispositions and behaviors of leaders that predict organizational health: displaying authenticity, valuing people, developing people, building community, providing leadership, and sharing leadership. Laub developed this list through a Delphi process (Laub, 1999). His six key categories are in agreement with the conclusions of philosophically aligned thinkers on this topic (Barth, 2002; Palmer, 2010; Sergiovanni, 2000, 2002). Each of Laub's (2003) six classifications contains subsets that develop and describe each theme. The ultimate measure for Laub's leadership framework was the health of the organization.

Finally, literature points repeatedly to the necessity of deliberate, calculated, and consistent practice for leadership dispositions and behaviors to effectively influence the ethos of a school (Barth, 2002; Sergiovanni, 2000, 2002). Wiggins and McTighe (2007) conclude that strategic alignment of values cannot occur without integrity and a thoughtful commitment to

fidelity of practice. Formative feedback for teachers, targeted instructional coaching, and meaningful professional development experiences are irreplaceable for improving and sustaining teacher effectiveness (Sergiovanni, 2000). Thus, it is vital that school leaders embrace a long-term view of the school's mission, vision, and purpose.

Leadership Density and School Culture

Leadership density is evidenced by a positive school culture. In healthy organizations, people's titles are not valued above their work (Laub, 2003). Therefore, the healthy school is filled with valuable leadership. Teachers specifically are leaders in positions of tremendous influence within a school because they are the ones who deliver the school's shared mission and values on a daily basis (Wiggins and McTighe, 2007).

School leaders attend to the importance of school culture and the specific practices that contribute to improving it. An important step toward leading the community to carry out its stated mission is to understand the subtle forces that contribute toward shaping a healthy school culture – namely, the attitudes and commitment levels of key stakeholders. Teachers flourish when they experience regular opportunities to contribute to decision-making processes and have an internalized ownership of a school's unique mission, vision, and values (Barth, 2002). Notable consensus exists regarding the implementation and sustainability of change efforts surrounding the value of teacher involvement and ownership in the process. Some will go as far as stating, "teachers are at the crux of successful educational reform" (Molinaro & Drake, 1998). When principals or change leaders attempt "lone wolf" ventures that originate solely from their own perceived reality, the impending results are division, burnout, and broken trust. Conversely, when teachers and principals openly develop goals together that focus on student learning and

evaluate new ideas in light of shared goals, their creativity, their energy level, and shared leadership are all enhanced (Kohm & Nance 2009).

Shared ownership also extends to involving parents and the community in the process of setting educational goals and defining the school's culture (Foster & Goddard, 2001). Weller and Weller (2002) propose that a school's success is closely tied to the level of inspiration and the involvement of its educators. They conclude that teacher participation in change efforts and school governance provide the intrinsic motivation and sense of ownership that are so essential for school effectiveness. Shared responsibility empowers teachers to improve educational programs within their realm of influence. Instructional leaders increase the focus upon improving student growth by cultivating a culture around learning (Taylor, 2010).

Scholarly consensus exists regarding desirable leadership practices for healthy school culture (Anfara & Mertz, 2014; Barth, 2002). A strong culture and clear sense of purpose moves a school in a positive direction and cultivates a healthy atmosphere (Sergiovanni, 2002). A healthy school culture includes multiple layers of leadership density and a tight alignment of core values (Laub, 2003; Sergiovanni, 2002). The work of Ross, Adams, Bondy, Dana, Dodman, and Swain (2011) highlights the importance of classroom teachers in the formation of school culture. When student learning is viewed as a communal responsibility, students experience consistent support and an aligned message from important adults in their lives.

Zmuda, Kuklis, and Kline (2004) elevate the importance of meaningful professional development and staff empowerment to keep teachers engaged and aligned with the school's vision. Their work highlights the relevance of relationships, dialogue, and a common vision to establishing a culture of success and improved student learning. For teacher involvement to be effective and positive, it must be authentic. A shared decision-making process should emphasize

stakeholder involvement, collaboration, and empowerment (Lambert, 2002). When teachers are invited to subscribe to a set of values and priorities and are valued as contributors, long-term support increases.

Studies indicate that a positive correlation exists between perceived servant-leader practices and teachers' reported satisfaction. Cerit (2009) conducted a study of teachers and their level of commitment over time to the same school. The results of his research concluded that servant-leader dispositions and behaviors can become a strategic point of focus for school stability and quality assurance because satisfied teachers hold a high level of commitment to the same school over time.

When educators and supervisors have clearly defined roles and responsibilities, strong relational capacity with one another, and systems in place that promote collaboration, they achieve school goals more efficiently and effectively. Jackson (2012) validated this finding, concluding that differences in principals' and teachers' perceptions of their influence precede task-oriented behaviors. For productive collaboration to exist it is vital that teachers and school administrators view one another as credible and well-intentioned team-members (Barth, 2002).

Numerous instruments are available to schools that can measure the quality of the school's leadership or the health of the organization. Northouse (2015) highlighted four organizational assessment tools that are specifically constructed upon various iterations of servant-leadership. Yet, these assessments tend to rely upon the top position-holder's self-evaluation and self-report. Additionally, few are adapted specifically and reliably for educational use. Conversely, Laub's (1999) instrument, called Organizational Leadership Assessment (OLA) – Educational Version, was designed to amplify the voice of teachers and has a well-vetted (Black, 2010) version designed specifically for schools (see Appendix D).

Leadership Density and Teacher Scorecards

Attempts at performance measurement in education have increasingly risen to prominence (Wood, 1992). School rankings, accountability systems, and funding have progressively been tied to metrics of effectiveness, despite such metrics having tended historically to be narrow and limited (Storey, 2002). Because of growing concerns regarding how performance measures have driven wrong behaviors to the detriment of students, the demand for balanced scorecards as a management and feedback mechanism has steadily increased over time (Kaplan & Norton, 2001; Garen, 2013).

Findings from a longitudinal study of 132 elementary and secondary teachers showed that teacher effectiveness does not necessarily remain stable over time (Morgan et al., 2014). This raises important questions about the impact of teacher tenure, and demands a more holistic approach to teacher evaluation. In addition, because teacher effectiveness tends to fluctuate from year to year, it behooves educational leaders to better understand the variables associated with teacher effectiveness, particularly the aspects of leadership that associate most strongly with desired outcomes (Kaplan, 2002).

Teacher effectiveness can be intentionally targeted for improvement. The Organizational Leadership Model developed by Laub (1999) was validated as a robust measure of leadership (Jackson, 2012). Because Laub's model includes dispositions and behaviors that can be practiced by administrators and emulated by teachers, it upholds servant-leader qualities in a way that can produce alignment. Teachers that practice servant-leadership have a transformational impact upon their students. Transformational growth occurs through a process of guided critical reflection upon assumptions that produces hopeful perspectives, attitudes, and beliefs (Sergiovanni, 2002; Geller, 2009).

A tight alignment of vision and values also improves teacher effectiveness. Schools with a healthy culture involve stakeholders who contribute to and advance a unified vision that can be applied to every educational program with fidelity and consistency. Wiggins and McTighe (2007) point to data-supported best practices for strategically aligning the school's mission, values, curriculum, and methodology. Most of these approaches depend upon collaboration between administrators and teachers. Collaboration depends upon leadership density across the entire school. A positive correlation exists between school culture and student learning (Barth, 2002).

Schools that welcome opportunities to learn and improve with enthusiasm are the types of educational communities in which learning consistently happens. In such schools, research, creativity, and discernment are employed to create the conditions in classrooms that approach learning a joyful journey. (Eisner, 2002). In high-achieving schools, teachers work together toward common goals and assume responsibility for every student's success (Kohm & Nance, 2009), and they find gratification in deepening their knowledge and perfecting their craft. The positive effect carries over into student growth when young learners come to enjoy their pursuit of understanding, too.

Qualities that effective learning communities share in common, according to educational research, include: an aligned and rigorous curriculum, effective instruction, use of formative assessment and student assessment data, a positive school climate, focused on achievement, competent school leadership, and an engaged community (Designing Effective Strategies, 2009). Similarly, Barth (2002, 2006) categorized as schools with a healthy culture, those in which:

- expectations for teacher relationships were clearly stated, modeled, supported, and protected by the principal.

- teachers had good relationships amongst themselves; the relationships among students came to reflect the trust, generosity, compassion, and helpfulness they observe.
- there existed enough trust and respect so that any issue was objectively discussed for clarification and improvement.
- craft knowledge was openly shared between educators for the benefit of school-wide objectives.
- congenial and collegial relationships existed among staff members so that each teacher could receive necessary support.
- an environment existed that was hospitable to human learning and that fostered life-long learning for both students and educators.
- educational leaders and the learning community worked to enable the residents of a culture to name, acknowledge, and address difficult topics – especially those that impeded learning.

Change initiatives both reveal and shape a school community's true cultural character. Servant-leaders that usher in a season of change within a school must allow for sufficient time to implement new initiatives and must also provide abundant opportunities for all members of the community to be involved in the process (Crippen, 2005). In order for schools to remain competitive and on the path of continuous improvement, they must adapt and embrace novel systems, curriculum, colleagues, administrators, and board members. A servant-led, culture-shaping initiative will be most effective when "combined into a thoughtful and integrated school improvement process" (Lambert, 2002, p. 40). Top-down orders and unilateral directives produce change quickly, but ownership and morale will likely suffer. While power may force one's hand, the heart cannot be forced. Teacher participation in change efforts and school

governance provides the needed variables of intrinsic motivation and sense of ownership that are essential for school effectiveness" (Weller & Weller, 2002, p. 141).

Teacher effectiveness is additionally impacted by the individual educator's sense of identity, belonging, and level of empowerment within the organization. According to Ross, Adams, Bondy, Dana, Dodman, and Swain (2011), effective teachers tend to view themselves as autonomous professionals and readily adopt a leadership stance. Acceptance and security provide teachers with the needed foundation from which to engage students and facilitate learning. Similarly, as teachers internalize the school's shared values and are encouraged to confidently make instructional decisions and adjustments, their effectiveness can increase. Steele's (2011) study found that teachers were most successful when they experienced an appropriate degree of freedom as to how the school's essential core values were to be honored and realized. Nonetheless, while servant-leadership and school culture each possess some degree of intrinsic appeal, attempts to control for and measure the correlation between these variables in relation to educational effectiveness have been limited.

For the purposes of this study, evaluation refers to the process of systematically gathering and analyzing data in order to determine the truth regarding the effectiveness of a program, measured against its intended outcomes and purposes. The current reality is that academic measurement "is now mandated in most local, state, and federal government agencies" and "expectations from the public and from policymakers" is extremely high (Fitzpatrick et al., 2004, p. 512). While evaluation is vital for program effectiveness and data-driven decision-making, it is insufficient in-and-of-itself for driving improved effectiveness. Growth will often depend upon targeted "formative assessments, specific to the context of the program" (Fitzpatrick et al., 2004, p. 27). Those that are closest to implementing a change are the ones who must spend the most

time analyzing, reflecting upon, and strategizing next steps to improve achievement. Administrators and teachers must glean what they can from the evaluation results, then respond with targeted, disciplined steps to set goals for improvement, professional development, ongoing formative feedback, follow-up support, and individualized coaching. Such inputs, rather than the evaluation instrument itself, must be the focus of teacher coaching for growth (Fitzpatrick et al., 2004).

The task of isolating variables is extremely complex in education. In fact it is impossible to replicate inquiry with the purity of a scientific laboratory (Wellington, 2015). Wise administrators must seek to embrace this fact and take a more holistic approach, understanding the overlap among numerous variables and outcomes. Well-executed program evaluations can accomplish several significant purposes (Fitzpatrick et al., 2004; Wellington, 2015). First, when intended outcomes are used as the measuring meter for effectiveness, the desired end is established and protected as the primary focal point; next, the strengths and weaknesses of a program surface. Finally, all data are considered (not only the loudest voices or perceptions) and each input is permitted to cast only a proportionate amount of light upon the whole picture of reality (Fitzpatrick et al., 2004).

Because of the mandated nature of evaluation, key stakeholders will "tend to see performance measurement as all that evaluation does" (Fitzpatrick et al., 2004, p. 512). In other words, test scores have their place, but the idea of a more balanced evaluation of teacher effectiveness is very attractive to many teachers and parents alike. However, some of a school's most valued outcomes are also the most difficult to measure. Namely, love for learning into adulthood, success in college and beyond, character development, leadership skills, etc. An overemphasis on measurement can detract from the work teachers do on these less-measurable,

highly important objectives, thus resulting in decreased overall effectiveness (Fitzpatrick et al., 2004). Similarly, standardized tests (including those that are part of my program evaluation) can seem to measure growth (see Figure 3 below) based on the assumption that all learners must demonstrate the same strengths in one set way (Ghamrawi, 2014). Hence, state assessments and Northwest Evaluation Association's (NWEA) Measures of Academic Progress (MAP) tests fail to account for numerous other areas of growth that many schools value. For instance, key stakeholders of a school may desire that students develop creativity, inductive reasoning, multiple intelligences, grit, virtuous character, etc. Though growth in these areas is not as easily measured as academic performance on a standardized test, they may be better predictors of students' long-term success and wellbeing (Tough, 2013). If teacher effectiveness and a school level of excellence are assessed using only narrow measures of academic growth, many important outcomes that key stakeholders value will likely be neglected (Fitzpatrick et al., 2004).

Conclusion

While the broad concept of educational leadership is no silver bullet for school effectiveness, the attitudes and actions of educators certainly can cap a school's ability to perform at high levels. Since the school's culture, core values, and the relational capacity between key stakeholders (students, teachers, administrators, parents) are intimately related to each other and to educational effectiveness, servant-leadership is a fitting organizing theory for this study. Laub (1999) identified the key dispositions and behaviors of servant-leadership theory. The literature provides evidence that both students and teachers benefit from working within a school culture that is characterized by servant-leader behaviors and dispositions.

Over the past ten years, scholarly literature on teacher dispositions, leadership practices, and school culture has steadily grown (Black, 2010; Crippen, 2003; Northouse, 2015). As a

scholar-practitioner, I am intellectually and professionally stimulated by this hypothesis: if school administrators strive to create an intentional ethos centered on the concept of leadership density, then teachers' scores will correspondingly improve. Nonetheless, data to support such a belief has yet to emerge; here exists a gap in the literature. To date, no studies have determined whether an individual educator's perceptions of leadership are significantly associated with his or her overall effectiveness. To this end, Laub's (1999) assessment tool can be administered to teachers and used to assess whether or not a statistically significant association exists between these variables.

The research designs and data sets of other scholarly undertakings on this topic differ from this study in four substantial ways. A study related to this line of inquiry was limited in that it only relied upon the teachers' self-reported effectiveness (Arifin, 2014) as opposed to external sources. Next, rather than considering individual teachers as the unit of measurement, other studies compared the performance of entire schools (Bryk & Schneider, 2003). In addition, these studies did not include a balanced evaluation of a teacher' effectiveness. By drawing solely from self-reports or standardized test results, these studies lack additional, enriching layers of insight provided by parents and supervisors. Finally, no other study has attempted to test these hypotheses utilizing Laub's (2003) servant-leadership framework and assessment tool (1999), which aligns most closely with my conceptualization of leadership density. The studies that utilized Laub's Educational Version of OLA (see Appendix D) established correlations to other variables, such as teacher satisfaction (Black, 2010) – but not teacher effectiveness. This research study, designed to explore the relationship between an individual teacher's perceptions of leadership density, operationalized through responses to each of the three sections of Laub's

Educational Version of OLA, and those same teachers' balanced bonus scorecards, breaks new ground.

CHAPTER 3

METHODS

This research aimed to expand scholarly understandings of how teachers experience leadership density through professional interactions in relation to balanced scorecard totals. Balanced teacher scorecard totals served as the dependent variable of this study. Focusing on the individual teacher as the unit of measurement, a correlational study examined whether existing leadership assessment data and balanced scorecard totals were significantly associated. The findings from this research were intended to generate intriguing questions, nuanced insights, and interesting connections.

Theoretical Model

The search for a balanced teacher scorecard that drives the right behaviors continues in a variety of educational contexts (Arifin, 2014; Kaplan & Norton, 2001; Kaplan, 2002). School districts across the nation negotiate yearly with teacher unions regarding teacher tenure, bonus scorecard calculators, and the role of standardized assessments in evaluating teacher quality. Each stakeholder group brings strong convictions and valid arguments to this discussion, yet seldom is consensus achieved. Thus, any measure of teacher success that incorporates a balanced representation of stakeholders' interests warrants special attention because it holds credibility in the eyes of a broader audience.

This study was designed to investigate whether a link exists that could tie, in a statistically significant way, the concept of leadership density to a balanced teacher scorecard. The analysis conducted in this research explored associations between individual teacher perceptions of leadership density and their balanced scores as represented by a triangulated

feedback mechanism (see Appendix A). Specifically, the focus of the research was to explore which teacher perceptions of leadership density were most strongly associated (if at all) with teachers' balanced scorecard totals.

Rosenthal et al. (2000) offered a robust exposition of the principles and procedures for employing correlational data-analytic methods in an exploratory study in the fields of behavioral and social sciences. Their work introduced researchers in these fields to a series of concepts, measures, and approaches that are wider and more useful for advancing understanding in the social sciences (p. ix). Given the exploratory nature of this study on the topic of professional interactions and outcomes among school staff, the design of this data-analytic research was to conduct a correlational examination of key independent variables. Specifically, this study analyzed a school-site's existing data to determine which, if any, of the leadership assessment results and balanced scorecard totals were most strongly correlated, taking the individual teacher as the unit of measurement.

This research aimed to generate questions for further investigation through a theoretical model. Based on my synthesis of the scholarly literature as well as my professional experience, I proposed six hypotheses. These hypotheses were designed to reflect common (though perhaps incorrect) assumptions about leadership and teacher effectiveness rather than my own conjectures. Findings derived from the exploration of these six hypotheses produced statistically reliable insights to either confirm or denounce each assumption (refer to Figure 1). Below is a summary of common assumptions relating to the focus of this research:

Common Assumption 1: Career variables have a positive and significant association to teacher effectiveness. This assumption is evidenced in school districts' salary schedules that assign

monetary value to years of teaching experience and education level without any further qualifications.

Common Assumption 2: How a teacher interacts with colleagues and supervisors is insignificant because this has no real bearing on valued metrics. The way people treat one another in the school does not add to the 'bottom line.'

Common Assumption 3: According to the tone of some conference presentations and the tenor of advice many practitioners read, the administrator's skill and tools to motivate are more important than teacher self-efficacy and empowerment.

Statement of Hypotheses

Because this research was exploratory by design and the data were available, direct observable variables (namely, teachers' years of experience and level of education) were included for analysis alongside the variables that related directly to the focus of this study's problem statement and literature review. The following six hypotheses reflect what I anticipated this study would find based on either my review of the literature or common assumptions from which many practitioners operate.

H_1*. There is a significant positive correlation between perceptions of leadership density, as evidenced school-wide, and individual teachers' balanced scorecard totals.*

H_2*. There is a significant positive correlation between perceptions of leadership density, as evidenced in supervisors' behaviors and dispositions, and individual teachers' balanced scorecard totals.*

H_3*. There is a significant positive correlation between perceptions of leadership density, as experienced by individual participants (in one's own role), and individual teachers' balanced scorecard totals.*

H_4*. There is a significant positive correlation between perceptions of leadership density on aggregate and individual teachers' balanced scorecard totals.*

H_5*. There is a significant positive correlation between years of teaching experience and individual teachers' balanced scorecard totals.*

H_6*.There is a significant positive correlation between level of education and individual teachers' balanced scorecard totals.*

Site Selection

Given the nature of this research, each variable present at the selected site adds a new layer of nuance to the study. The uniqueness of a school site could allow relevant statistical associations to be seen with helpful visibility. Specifically, the following attributes were noteworthy features of this study's site school.

a. *Included a variety of grade-levels.* This characteristic provided a sufficiently broad range of grade-levels that allowed for increased transferability of potential insights to more than one developmental stage (e.g. elementary and middle school, or middle school and high school).
b. *Participants had variability across teaching experience.* This characteristic ensured that participants represented multiple career stages. This feature was noteworthy because this variable could potentially sway participants' perceptions and expectations of leadership density.
c. *Size*. The site school's total population size included an acceptable number of comparable participants. This was an important measure for ensuring that *n* was large enough so that the Central Limit Theorem (CLT) could be applicable.
d. *The school's leadership indicated interest and granted permission.* If the school's leadership had not exhibited an interest in the topic, they would have been unwilling to grant permission

to use their school's existing survey results and other pertinent data. Further, the leadership's interest in and support of this research was vital as an indication of the school's desire to receive formative feedback and support in applying improvement initiatives based on any findings yielded by this study.

e. *Trustworthiness*. The processes utilized in the collection and preservation of existing data were ethical and reliable.

f. *Employed a balanced metric.* Existing data for individual teachers was available that was based on a balanced, triangulated feedback mechanism. The data included input from at least three stakeholder groups (specifically, student academic growth on a nationally benchmarked assessment, parent feedback, and supervisor's evaluation).

g. *Confidentiality*. Teacher names had been replaced with numerical codes. Data existed from responses to Laub's (1999) OLA instrument that permitted individual teachers' scores on each of the instrument's three sections to be tracked.

For the purposes of this study, the school site was given a pseudo name: *ETHOS*. ETHOS was a public lottery-based PreK-8th grade charter school situated in an affluent town of roughly 50,000 inhabitants outside of a larger metropolitan area populated by over two million in the Inner West of the U.S.A. For the 2014-2015 school year, ETHOS serviced over 700 students with approximately 100 students at each grade level K-5, with slightly less in grades 6 and 7. Grades were divided into classes capped at 26, taught by one teacher per classroom and had one teacher-aide per grade level. Approximately 7% of the student population had Individualized Education Programs (IEPs) for mild to moderate learning needs. Three full-time learning specialists, one school psychologist, one speech and language pathologist, and two teacher aides

serviced this caseload. There were over 38 teachers at this site school, all of whom participated in the school's evaluation and leadership assessment processes.

The characteristics of ETHOS are identified in Table 1. Key distinctive attributes of ETHOS referenced previously in this research are highlighted. All comparable teachers participated in both metrics that populated the two data sets of interest to this study: the bonus scorecard and the OLA. Students were enrolled through a lottery process to receive a tuition-free public education delivered by educators who willingly walked away from teacher tenure and teacher union memberships that would have been available to them at other district schools in the area.

Table 1
Characteristics of the Study's Site

Characteristics	School Site
Type	Public Charter
Admission	Lottery
Government	Independent Board
Tenure	No Tenure
Balanced Feedback Tool	Bonus Scorecard
School Health Measure	OLA
Grades	K-8
Comparable Teachers	38
Students	736

Participants

The OLA was administered through anonymous (coded) group setting survey, using a census design, in which 100% of teachers in Kindergarten through 7th grade participated. ETHOS refers to specialist teachers that teach computer, art, music, physical education, and world languages as *Specials* teachers. Specials teachers were included in this study because their data was comparable: parents completed the same survey for each of them, supervisors evaluated them against the same metric, and student growth was included on their bonus scorecard with

equal weight. Other specialists such as literacy teachers and learning specialists that service students with individual education or literacy plans were not included in this study for two reasons. First, unlike the participants that were included, these interventionists did not teach whole classes of students or participate in weekly professional team meetings with the same supervisors. Second, because the supervisors' evaluation of each teacher was customized to the unique objectives of each of these interventionist's roles, the metrics by which these specialists were evaluated was not considered sufficiently compatible to the other 38 participants. The number of participants in each category can be seen in Table 2.

Table 2

Number of Participants per Category

Category	Number of participants
Kindergarten	5
1st Grade	4
2nd Grade	4
3rd Grade	4
4th Grade	4
5th Grade	4
Grades 6-7	5
Specials	8
Total	***38***

The proposed school site was distinctive in several ways. School administrators had full autonomy over hiring and renewing of all staff members. The school's staff developed their own, in-house supervisor evaluation tool, parent survey, and bonus calculator with strong teacher involvement. The school had an independent governing board that operated within its authorizing district's guidelines. The demographics for the teachers at ETHOS are shown in Table 3.

Table 3

Characteristics/Demographics of Teachers at ETHOS

Characteristics	Teachers
Total	38
Female	35
Male	3
Average Age	37.3
Average Years at Site of Study	1.8
Teachers with a graduate degree	4

The staff of this K-8 school was predominately comprised of female teachers. Because ETHOS was a start-up school in its second year of operation, the average number of years teachers had at the site was 1.8. The two columns of Appendix E titled Career Variables list each teacher's years of teaching experience and level of education.

Instrumentation and Procedures

ETHOS utilized two measurement tools to collect data for this study. First, Laub's (1999) Organizational Leadership Assessment (OLA), Educational Version (see Appendix D) was used to measure teacher perceptions of leadership. On the aggregate, this instrument measures the degree to which the school demonstrates the following six themes (Laub, 1999):

a. *Displays Authenticity* – being open, accountable, and willing to learn from others
b. *Values People* – believing, serving, and non-judgmentally listening to others
c. *Develops People* – providing learning, growth, encouragement and affirmation
d. *Builds Community* – developing strong collaborative and personal relationships
e. *Provides Leadership* – foreseeing the future, taking initiative, and establishing goals
f. *Shares Leadership* – facilitating and sharing power

The estimated reliability of Laub's (1999) OLA instrument, using the Cronbach-Alpha coefficient, was particularly strong at .98 (Laub, 2003). The OLA contains three sections, which

assess the perceptions of various indicators of organizational health on three levels: (1) school-wide, (2) supervisors, (3) self. There are 66 items on the survey, with 21 items in section 1, 33 items in section 2, and 12 items in section 3. Each item has a possible range of 1 to 5:

- Strongly Disagree (1) indicating low servant-leader dispositions
- Disagree (2)
- Undecided (3)
- Agree (4)
- Strongly Agree (5) indicating high servant-leader dispositions

The results of the OLA for each teacher were used to directly match these findings to individual balanced scorecard totals. Table 4 identifies how the variables on dimensions of leadership density are operationalized and measured by Laub's (1999) OLA instrument for this research.

Table 4

Operationalization of Leadership Density Variables

Variables on dimensions of leadership density	Operationalization	Item numbers on Laub's (1999) OLA
Perceived Leadership Density: School-wide	OLA Section 1 (School-wide)	1-21
Perceived Leadership Density: Supervisors	OLA Section 2 (Supervisor)	22-54
Perceived Leadership Density: Self	OLA Section 3 (Self)	55-66
Perceptions of Leadership Density on aggregate (Overall)	OLA Total	1-66

Before each evaluation, participants were presented an overview of the assessment and a clear explanation of its two-fold purpose: (1) as a form of feedback for school administrators regarding the school's overall health and (2) as confidential data for future research. The school site explained to teachers how their surveys had been coded and how the process of collecting,

organizing, and analyzing the data would be divided among different staff members to further ensure that confidentiality would be permanently protected.

ETHOS assigned a random numerical code to each survey. Then, a staff member who did not have a supervisory relationship with teachers administered the assessment to small groups of 4-5 teachers during their shared planning periods. Next, the completed surveys were scored and totals for each section were given to the Business Manager who oversaw all of ETHOS' human resources. The Business Manager confidentially compiled each teacher's OLA scores, career data, and scorecard totals. Finally, the Business Manager replaced teachers' names with teacher codes (see Appendix E).

Assessment of effectiveness, particularly in the field of education, can never maintain pure neutrality. The act of conducting an evaluation does itself become a major variable that can affect the results of the program under review. An evaluation process is not designed to change the program it aims to assess but there are cases in which this may be inevitable. However, such influence may be relatively lessened in this case because the evaluation instrument was populated by existing data, which comes from established sources that are already built into this organization's annual rhythms of assessment, supervisory reviews, and communication.

Stakeholders

Fitzpatrick et al., (2004) emphasized the importance of aligning evaluation measures to school stakeholders in a way that values and communicates effectively with each intended audience. Below are ETHOS' key stakeholders and the communication format that was most fitting for each.

a. *Boards/Agencies who approve the program:* School board, district and the state Department of Education. The district and state boards or agencies' stake in ETHOS' performance was

tied to fund allocation and future planning. The school autonomous board of directors had a higher stake than the district and state. Priority concerns of ETHOS' board included the capability of the principal, the school's reputation, and its long-term viability.

b. *Program managers: School's administration team.* This group's success depended on the effectiveness of teachers. Therefore, their stake was very high for quality control and professional development purposes. This group played a central role in collecting data by preparing the parent survey, training staff, and managing all assessments.

c. *Program deliverers: Teachers.* Teachers deliver the school's mission on a daily basis. For this reason, teachers were integrally involved in the processes of developing each component of the bonus scorecard (see Appendix A), more so than any other group. Over the course of several months before the completion of the instrument, teachers had opportunities to give input on what a balanced feedback mechanism should include. Their feedback informed the percentages ascribed to each of the categories included in the instrument. Each year teachers discussed the feedback provided them in each section of the balanced scorecard in a one-on-one meeting with an administrator. Those meetings served an important formative purpose for teachers. They provided each teacher an opportunity to clarify questions, celebrate successes, and agree upon areas to strategically target for growth going forward.

d. *Direct clients of the program: Current students and their parents.* Students were involved through their participation in summative assessments. Furthermore, the overall experience of students at ETHOS was assessed indirectly through their parents' responses on the parent survey. Parents had the opportunity to complete an end-of-year survey, giving feedback to each of their teachers on ten categories that teachers collaborated in creating (see Appendix B). ETHOS communicated individual student scores to families on all assessments in

comparison to the students' previous score, the grade-level average growth at our schools, and national averages.

e. *Potential adopters of the program: Prospective students and their families.* The long-term sustainability of schools where families can freely vote with their feet hinges upon the reputation it builds in the eyes of prospective families. The default indicator of a school's success is the comparative performance of its students on summative standardized assessments. ETHOS has hundreds of students on its waitlist without spending any funds on marketing. Thus, the reputation of the school in the community and word-of-mouth marketing are vital for its long-term success and sustainability. Involvement or input from this group was only informal and mostly anecdotal (e.g., when prospective families communicated directly with staff members by phone, email, or in person, or through recurring comments or questions I heard when giving these stakeholders a tour of ETHOS).

Table 5 outlines the data sources next to their respective interest groups.

Table 5

Connecting Data Sources to Interest Groups

Data Sources	Interest Groups
School-wide Growth on State Assessment	School district and state Education Department, school's administration team, students and their parents, prospective students and their families, school's teachers. This source did not inform bonus scorecard the year of the study because the state changed assessment instruments, which did not permit a growth comparison.
Growth on NWEA's MAP tests for Reading, Writing, and Mathematics	School's administration team, students and their parents, prospective students and their families, school's teachers. This source informed bonus scorecard.

Annual Parent Survey	School's administration team, students and their parents, prospective students and their families, school's teachers. This source informed bonus scorecard.
Supervisor's Evaluation	School's administration team, school's teachers. This source informed bonus scorecard.

Balanced Scorecard

With the input of founding staff members ETHOS developed a bonus scorecard instrument. It was intended to give teachers balanced feedback about their effectiveness over the course of one school year, based on the school's unique values. Key indicators of effectiveness were included in this balanced bonus scorecard. Namely, the instrument was designed to represent three priority outcomes:

a. *Every student will grow academically every year*
b. *Professional and effective collaboration among educators*
c. *Effective communication and classroom leadership for holistic student growth*

ETHOS' bonus scorecard was created to answer this important question: *How can we grow each year, aiming toward that which ETHOS most values?* The impetus for creating this feedback mechanism came from a desire to provide teachers with individualized professional development plans that were in alignment with the school's priority values. Priority goals for ETHOS included:

a. *Student learning:* This goal was selected with the belief that very student should grow every year in comparison to him or herself and that this growth could be measured particularly in the disciplines of math, reading, and language usage.

b. *Parent satisfaction:* This goal was included with the knowledge that parents would vote with their feet and that the school's budget depended upon strong student retention from year to year.

c. *Professionalism:* This goal was valued because staff consensus was that if professional interactions among ETHOS staff were characterized by collaboration, continuous improvement, leadership density, and coachability, teacher retention and effectiveness would benefit.

The above-mentioned indicators of effectiveness were then assessed by ETHOS using the following measures:

a. *Student learning:*

   i. School-wide Growth on State Assessment: Every year the state department requires every student in public schools to complete a proficiency exam in Reading, Writing, Mathematics, and Language Usage.

   ii. Grade-level Growth on NWEA's MAP tests for Reading, Writing, and Mathematics

   iii. Individual Skill-Group's Growth on NWEA's MAP tests for Reading, Writing, and Mathematics

b. *Parent satisfaction*: Annual Parent Survey.

c. *Professionalism*: Supervisor's Evaluation.

   i. Classroom Leadership

   ii. Content Knowledge

   iii. Instructional Skill

   iv. Professionalism

v. *Communication*

vi. *Teamwork and Collaboration*

The bonus scorecard was collated at this school site yearly for every teacher. It was comprised of four categories listed below with the percentage of the total score for each one:

a. *Academic growth* – 20%

b. *Parent survey* – 30%

c. *Supervisor evaluation* – 50%

Academic growth was assessed using the NWEA's MAP tests in August, January, and April, annually. ETHOS only measures students' academic growth on MAP in the subjects of Reading, Language Usage, and Math. Teachers' student growth scores are the average of these three tests.

Analytical Procedures

Individual teachers were the unit of analysis in this study. Pearson product-moment correlation coefficient was selected as the most fitting statistical procedure due to the nature of the data set, the size of *n*, and the research hypotheses proposed for this study (McMillan & Schumacher, 2014). Using zero-order correlation, I determined whether any significant associations between scorecard totals and available independent variables existed. Since the average scores on each section were available in addition to the aggregated total, each section of the OLA was treated as a separate independent variable.

Individual teachers' OLA response scores were evaluated in light of their respective balanced scorecard totals. The independent variables as measured by the OLA (see Table 4) were teachers' perceptions of leadership density operationalized as OLA Section 1 (School-wide), OLA Section 2 (Supervisor), and OLA Section 3 (Self). The other independent variables included were years of teaching experience and level of education. Grade-level taught will not be

included because ETHOS did not wish to disclose this information as an additional precautionary measure to further ensure teacher confidentiality. The dependent variable was balanced scorecard totals (see Figure 1).

A Pearson product-moment correlation coefficients matrix was created as a tool for analysis. Given that $n = 38$ in this study, p-values were calculated to determine the statistical strength of each correlation. For a correlation to be considered strong, its p-value must be lower than .05 (Mills & Gay, 2015). Additional analyses beyond these correlations were not be performed, given the small size of n. Therefore, due to this limitation, I was unable to use regression to determine the r-value of all the independent variables.

Research Ethics

Using numerical codes and division of roles, all existing data were collected and preserved by ETHOS staff with care for individual teachers' anonymity and confidentiality. ETHOS' Board of Directors and Business Manager granted institutional permission for the use of these data for the purpose of this research (see Appendix F). Prior to completing the OLA, teachers were informed of the dual purpose of the data collected: (1) as formative feedback for the organization and (2) for future research specifically tied to teacher scorecard totals using randomly assigned numerical codes to replace teacher names (see Appendix E). Because these coded data are part of ETHOS' existing, yearly metrics, I did not solicit individual participants' permission.

Conceptualization and Operationalization of Variables

Independent and dependent variables were conceptualized and operationalized as follows:

Independent Variables

In this research, career variables included two direct observables: (1) number of years in the teaching profession and (2) level of education (see Appendix E). Number of years in education was represented numerically. ETHOS only indicated number of years up to 10. Teachers with 10 or more years of experiences were represented at 10+ and were calculated as 10. Because teacher effectiveness tends to fluctuate most significantly within the first three years of experience (Wong & Wong, 2009), the way ETHOS represented years of teaching experience still permitted the same statistical procedure to be reliably applied to the analysis of this variable.

Level of education was represented by three categories:

a. *Education Level 1.* Teachers that met the minimal requirements for highly qualified designation according to No Child Left Behind (those possessing only an undergraduate degree in their teaching subject or level) were represented as 1.
b. *Education Level 2.* Teachers that had completed 15 credits or more beyond an undergraduate degree, but had not yet earned a graduate degree were represented as 2.
c. *Education Level 3.* Teachers that had earned a graduate degree were represented as 3.

The construed observable in this study was the concept of leadership density which was operationalized in each section of Laub's (1999) OLA. The three sections of the OLA are at each of the dimensions outlined in Table 4: OLA Section 1 (School-wide), OLA Section 2 (Supervisor), and OLA Section 3 (Self). For his dissertation, Laub (1999) ran reliability and item-to-test correlations on the 60-item OLA instrument. The OLA had a mean of 223.79 on a total potential score of 300 and the standard deviation was 41.08. The alpha coefficient was .98. The lowest item-test correlation was .41 and the highest was .79. Laub's OLA was designed so that results on this assessment were taken as a whole. In the summary of Laub's dissertation

(2015), Laub's OLA reveals alpha coefficients of the entire OLA instrument and of OLA Section 3. Because coefficients for OLA Sections 1 and OLA Section 2 were not indicated in Laub's dissertation, these we calculated as shown in Table 6.

1. Perceptions of Leadership Density as demonstrated school-wide was operationalized as responses to OLA Section 1 (termed henceforth, *School-wide*). The reliability of this dimension was not indicated in Laub's dissertation.
2. Perceptions of Leadership Density as displayed by teachers' direct supervisors was operationalized as responses to OLA Section 2 (termed henceforth, *Supervisor*). The reliability of this dimension was not indicated in Laub's dissertation.
3. Perceptions of Leadership Density based on the teacher's own self-reported experience was operationalized as responses to OLA Section 3 (termed henceforth, *Self*). According to Laub (2015, p. 22), the reliability of this dimension, using Crombach's Alpha coefficient was .81.
4. Perceptions of Leadership Density Overall was operationalized as responses to OLA Total (the average of Sections 1, 2, & 3). According to Laub (2015, p. 19), the reliability of this dimension, using Crombach's Alpha coefficient was .98.

Dependent Variable

Individual teachers' scorecard total was the dependent variable of interest to this research. Teacher scorecards were operationalized as teachers' bonus percentage totals as described in *Research Design and Nature of the Data Set* (see Appendices A, B, and C).

Role of the Researcher

I have two primary roles that could potentially have created bias for me as researcher. First, I undertook this study as a dissertation for my doctoral degree. I have a vested stake in

utilizing this data as a means to gain this advanced terminal degree. Second, I am principal of ETHOS and have a direct supervisory role with the participants. I acknowledge that these roles add complexity and must be accounted for.

In order to tend to cautions inherent with doctoral candidacy, I committed to adhering to the rules of statistical analysis and to apply my graduate training to conduct a fair treatment of the numbers. Due to my direct supervisory relationship with participants as ETHOS' principal, individual teachers' names, grade-levels, gender, disaggregated supervisor evaluation scores, or any other information that could compromise participants' anonymity and confidentiality was excluded. For similar reasons, I did not interview these participants with further exploratory qualitative research questions for the purposes of this study. In my practice, I have only used these data sets for my own formative growth and for the school's overall strategic focus. As a school leader, I am interested in gaining a better understanding of how perceptions of leadership density within my building associate to teachers' scorecard totals according to the balanced feedback mechanism utilized by my organization.

The evaluator's role can be somewhat paradoxical. Although the evaluator must consistently collect data without allowing his/her own biases, perspectives, or desired results to pollute the data, the evaluator must play an active role in the process of seeing the evaluation process through, beyond the initial step of measuring current performance (Fitzpatrick et al., 2004). This includes formative follow-up and sharing of expertise as to next steps for closing performance gaps. Judgments about an individual's progress and ability to move forward must come "after a considerable formative process" (Van Brummelen, 2009, p. 9). I embrace this responsibility as researcher and am committed to applying my findings from this study for the formative growth of the participants and of ETHOS.

Potential Contribution of the Research

Four aspects of this investigation made this study distinctive. First, this study conceptualized the idea of leadership density. This concept was designed to shift the focus from the actions of positional leaders to the outcomes of leadership density for teacher effectiveness. Next, this research operationalizes leadership density as four dimensions of Laub's (1999) OLA. Also, it considered the individual teacher as its unit of measurement. Finally, quantitative correlational analysis was leveraged to generate scholarly questions that could further academic discourse on these topics.

Findings from this research could provide beneficial insights for teachers, school administrators, educator training programs, and policymakers regarding the nuances of how professional interactions are experienced in relation to balanced teacher scorecard totals. If one or more statistically significant correlations exist between the ways a teacher experiences leadership and that teacher's individual balanced scorecard total, erroneous assumptions about teacher effectiveness, instructional coaching, professional development, and the strategic focus of programs designed to train teachers can be corrected.

These findings could empower teachers by revealing specific ways in which their interactions with teammates, colleagues, and administrators are most strongly associated to balanced scorecard totals. Similarly, administrators may gain fresh insights that reframe their outlook on how to approach weekly meetings, staff trainings, and individualized growth plans, as well as which dispositions to seek out in recruiting and hiring new teachers. While many teacher and administrator training programs at the undergraduate and graduate levels are likely touching upon worthwhile topics, these findings could confirm or challenge which specific factors are most directly related to a balanced scorecard total. With such information, educator-training

programs may be led to reevaluate their allocation of class-time, textbook selection, course offerings, and graduation requirements, as well the foci of their students' practicum, student teaching, and internship experiences.

Traditionally attempts at assessing teacher effectiveness have been tied primarily to student performance on standardized tests. Some policies designed to increase school accountability have produced unintended, and often counter-productive consequences (Arifin, 2014; Kaplan & Norton, 2001; Kaplan, 2002). Administrators can feel caught in a dilemma: How to create a social environment for both students and staff that is hospitable while simultaneously demonstrating measurable academic growth? Intuitively, most administrators may agree that leadership density is upstream from student growth. However, as external pressure builds and jobs are put on the line, professional interactions can quickly turn into top-down dictums. Such environments can limit teacher effectiveness (Bryk & Schneider, 2003). Findings from this study could equip innovative policymakers and governing boards with scholarly insights and informed considerations that could guide directional decisions.

CHAPTER 4

RESULTS

The purpose of this study was to explore factors associated with leadership density and teacher effectiveness. A quantitative analysis was conducted of a K-8 school's coded organizational leadership assessments and existing bonus scorecard totals. Specifically, this study aimed to discover whether statistically significant relationships exist between the way a teacher experiences leadership, operationalized as the independent sections of the OLA, and teachers' balanced scorecard totals, using zero-order correlations.

The independent variables as measured by the OLA (see Table 4) were teachers' perceptions of leadership density operationalized as OLA Section 1 (School-wide), OLA Section 2 (Supervisor), OLA Section 3 (Self), and OLA Total. The other independent variables were years of teaching experience and level of education. The dependent variable was teachers' balanced scorecard totals (see Figure 1). Pearson product-moment correlation coefficient was used as a statistical procedure due to the nature of the data set, the size of *n*, and the research hypotheses proposed for this study (McMillan & Schumacher, 2014). This chapter presents the results of the correlational study posed by the six hypotheses.

Given that $n = 38$ in this study, *p*-values were calculated to determine the statistical strength of each correlation. For a correlation to be considered strong, its *p*-value must be lower than .05 (Mills & Gay, 2015). In this study each section of Laub's OLA was analyzed as an independent variable. Reliability coefficients for OLA Sections 1 (School-wide) and OLA Section 2 (Supervisor) were not indicated in Laub's (2015) dissertation. Therefore, the reliability of each of these dimensions was calculated using Crombach's Alpha.

1. Perceptions of Leadership Density as demonstrated school-wide was operationalized as responses to OLA Section 1 (School-wide). The reliability of this dimension, using Crombach's Alpha coefficient was .86.
2. Perceptions of Leadership Density as displayed by a teacher's direct supervisor were operationalized as responses to OLA Section 2 (Supervisor). The reliability of this dimension, using Crombach's Alpha coefficient was .83.

The reliability coefficient of each dimension of OLA is shown in Table 6.

Table 6

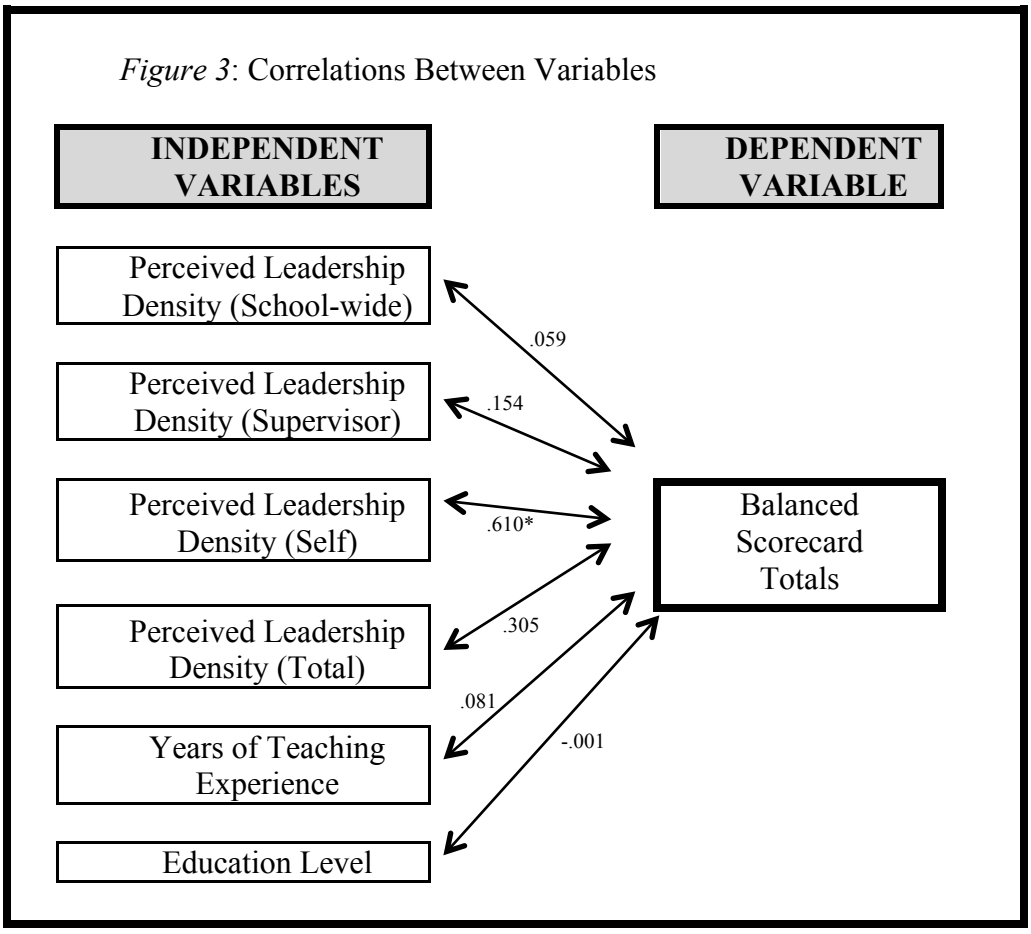
Reliability Results for each Dimension of OLA

OLA Dimension	Crombach's Alpha Reliability Coefficient
Section 1 (School-wide)	.86
Section 2 (Supervisor)	.83
Section 3 (Self)	.81
Aggregated Total	.98

This research aimed to generate questions for further research through a theoretical model. Based on previous literature and professional experience, I proposed six hypotheses. These hypotheses were designed to reflect common (though perhaps incorrect) assumptions about leadership and teacher effectiveness rather than my own conjectures. Individual teachers were the unit of analysis in this study. Findings derived from an exploration of these six hypotheses could yield statistically reliable insights to provide support or lack of support for each assumption (refer to Figure 1). As a tool for analysis, a Pearson product-moment correlation coefficients matrix was created (see Appendix G).

Each arrow in Figure 3 indicates the variables analyzed in this study. The resulting *p*-values found in each analysis are listed next to the respective arrow.

Figure 3: Correlations Between Variables



* $p < 0.5$

Results of Dimensions of Leadership Density Variables Analysis

H_1. There is a significant positive correlation between perceptions of leadership density, as evidenced school-wide, and individual teachers' balanced scorecard totals.

A correlational analysis was performed to examine if perceptions of leadership density, as demonstrated school-wide, were significantly associated with teachers' balanced scorecard totals (see Table 7). Teachers' perceptions of leadership density school-wide were not significant, Pearson's $r = .059$, *t*-value = .177, *p*-value = .863 (see Appendix G).

H_2. There is a significant positive correlation between perceptions of leadership density, as evidenced in supervisors' behaviors and dispositions, and individual teachers' balanced scorecard totals.

A correlational analysis was performed to examine if perceptions of leadership density, based on the supervisor's behaviors and dispositions, were significantly associated with teachers' balanced scorecard totals (see Table 7). Teachers' perceptions of leadership density as demonstrated by their supervisors' were not significant, Pearson's r = .154, t-value = .467, p-value = .651 (see Appendix G).

H_3. There is a significant positive correlation between perceptions of leadership density, as experienced by individual participants (in one's own role), and individual teachers' balanced scorecard totals.

A correlational analysis was performed to examine if perceptions of leadership density, as experienced in the participant's own role, were significantly associated with teachers' balanced scorecard totals (see Table 7). A significant positive correlation did exist between teachers' balanced scorecard totals and the way they reported experiencing leadership density in their own role, Pearson's r = .610, t-value = . 2.309, p-value = .046 (see Appendix G).

H_4. There is a significant positive correlation between perceptions of leadership density on aggregate and individual teachers' balanced scorecard totals.

A correlational analysis was performed to examine if perceptions of leadership density on aggregate were significantly associated with teachers' balanced scorecard totals (see Table 7). Teachers' perceptions of leadership density on aggregate were not significant, Pearson's r = .610, t-value = . 2.309, p-value = .046 (see Appendix G).

The results of the correlational analysis of teacher's perceptions of leadership density in relation to balanced scorecard totals are displayed in Table 7.

Table 7

Summary of Correlational Analysis Between Perceptions of Leadership Density and Teachers' Balanced Scorecard Totals

Variable	Pearson's *r*	*t*-value	*p*-value
School-wide	.059	.467	.863
Supervisor	.154	.467	.651
Self	.610	2.308	.046
Total	.305	.962	.361

Of the four independent variables measuring dimensions of leadership density, only one had a significant positive correlation to teachers' balanced scorecard totals. Therefore, H_1, H_2, and H_4 failed to be accepted while H_3 was accepted, *p*-value = .046.

Results of Career Variables Analysis

H_5. There is a significant positive correlation between years of teaching experience and individual teachers' balanced scorecard totals.

A correlational analysis was performed to examine whether years of teaching experience were significantly associated with teachers' balanced scorecard totals (see Table 7). Teachers' years in teaching were not significant, Pearson's *r* = .518, *t*-value = 1.816, *p*-value = .103 (see Appendix G).

H_6. There is a significant positive correlation between level of education and individual teachers' balanced scorecard totals.

A correlational analysis was performed to examine whether level of education was significantly associated with teachers' balanced scorecard totals (see Table 8). Teachers' levels

of education were not significant, Pearson's r = -.001, t-value = -.054, p-value = .997. (see Appendix G).

The results of the correlational analysis of career variables in relation to balanced scorecard totals are displayed in Table 8.

Table 8

Summary of Correlational Analysis Between Career Variables and Teachers' Balanced Scorecard Totals

Variable	Pearson's r	t-value	p-value
Years in Teaching	.518	1.816	.103
Level of Education	-.001	-.004	.997

Neither of the direct-observable independent career variable in this study had a significant correlation to teachers' balanced scorecard totals. Therefore, $\boldsymbol{H_5}$ total $\boldsymbol{H_6}$ failed to be accepted.

Strongest Statistical Association to Balanced Scorecard Totals

Of the six independent variables analyzed in this study, only one had a significant positive correlation to teachers' balanced scorecard totals with p-value under .05. Therefore, $\boldsymbol{H_1}$, $\boldsymbol{H_2}$, $\boldsymbol{H_4}$, $\boldsymbol{H_5}$, and $\boldsymbol{H_6}$ failed to be accepted while $\boldsymbol{H_3}$ was accepted, p-value = .046.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

Teacher effectiveness is a shared goal around which all of a school's stakeholders can unite. However, variables associated with educator effectiveness are complex and intertwined. My school had interesting but unexamined data that held the potential to cast helpful light onto questions relating to teacher effectiveness and leadership perceptions. My objective was to study relationships among these variables. I designed this exploratory research to spark intriguing questions and generate nuanced understandings. If this exploration adds new colors and hues to the scholarly picture of how K-8 teachers experience professional interactions in relation to balanced scorecard totals, it fulfills its research purpose.

First, I conceptualized leadership density from its theoretical roots to the fruit it produces in school culture. Next, I operationalized leadership density as the four dimensions of Laub's (1999) OLA: school-wide, supervisor, self, and on aggregate. I then engaged in exploratory quantitative data analytics, using balanced scorecard totals as the dependent variable. Existing data for two career variables were additionally explored in relation to the dependent variable: years of teaching experience and education level (see Figure 3). I developed a Pearson product-moment correlation matrix to organize the associations among variables (see Appendix G). This chapter discusses the findings and scholarly inquiries generated by this research in three phases. First, I summarize the quantitative findings uncovered in the exploration of this study's six hypotheses. Then, I analyze the meanings of the findings. Finally, I discuss the implications of this research.

Summary of Findings

This portion of the chapter summarizes the findings of this study. First, I review the common assumptions and hypotheses outlined in Chapter 3. Next, I summarize the findings relating to leadership density variables. Then, I connect the findings for those variables to the respective assumptions and hypotheses. Finally, I offer a similar summary and discussion of findings for career variables.

Common Assumptions

My discussion in this section connects the findings of the research to three common assumptions that relate to key variables of this research. These assumptions reflect challenges articulated in this study's problem statement. The common assumptions below provided the trajectory for exploration in this research:

Common Assumption 1: Career variables have a positive and significant association to teacher effectiveness. This assumption is evidenced in school districts' salary schedules that assign monetary value to years of teaching experience and education level without any further qualifications.

Common Assumption 2: How a teacher interacts with colleagues and supervisors is insignificant because this has no real bearing on valued metrics. The way people treat one another in the school does not add to the 'bottom line.'

Common Assumption 3: According to the tone of some conference presentations and the tenor of advice many practitioners read, the administrator's skill and tools to motivate are more important than teacher self-efficacy and empowerment.

Statement of Hypotheses

My exploration of the six hypotheses yielded statistically reliable insights that address the above assumptions (see Figure 1). The following six hypotheses reflect what I anticipated this study would find based on my review of the literature or the common assumptions by which many practitioners appear to operate:

***H_1**. There is a significant positive correlation between perceptions of leadership density, as evidenced school-wide, and individual teachers' balanced scorecard totals.*

***H_2**. There is a significant positive correlation between perceptions of leadership density, as evidenced in supervisors' behaviors and dispositions, and individual teachers' balanced scorecard totals.*

***H_3**. There is a significant positive correlation between perceptions of leadership density, as experienced by individual participants (in one's own role), and individual teachers' balanced scorecard totals.*

***H_4**. There is a significant positive correlation between perceptions of leadership density on aggregate and individual teachers' balanced scorecard totals.*

***H_5**. There is a significant positive correlation between years of teaching experience and individual teachers' balanced scorecard totals.*

***H_6**.There is a significant positive correlation between level of education and individual teachers' balanced scorecard totals.*

Summary of Findings for Leadership Density Variables

Of the four independent variables measuring dimensions of leadership density, only one had a significant positive correlation to teachers' balanced scorecard totals. Based on quantitative data analysis, H_1, H_2, and H_4 failed to be accepted while H_3 was accepted, p-value = .046.

Therefore, the way a teacher experiences leadership density does matter. This finding challenges *Common Assumption 2.* How a teacher experiences professional interactions with colleagues and supervisors does matter. To the extent that the balanced scorecard represents a school's bottom line, the way people work with one another is very significant.

There is a significant positive correlation between the way a teacher experiences leadership density and that teacher's score on the balanced scorecard. However, this association hinges upon only one dimension of leadership density: the individual's own experience. The way a teacher perceived leadership density, as evidenced school-wide, had no association to his or her balanced scorecard total. Similarly, whether a teacher reported his or her direct supervisor to exhibit servant-leader dispositions and behaviors in general had no direct association to balanced scorecard totals. This nuanced finding challenges *Common Assumption 3.* The administrator's charisma and use of motivational tools, in this sense, were not significant. On the other hand, teachers who most strongly affirmed their own positive experience as a valued participant were those with the highest balanced scorecard totals. Conversely, teachers who reported experiencing less leadership density in their own role were those with the lowest balanced scorecard totals.

Summary of Findings for Career Variables

Neither of the two direct-observable independent career variables in this study had a significant correlation to teachers' balanced scorecard totals. Therefore, $\boldsymbol{H_5}$ and $\boldsymbol{H_6}$ failed to be accepted. Regardless of whether the teacher is new to the vocation or seasoned at it, years of teaching experience had no association to his or her balanced scorecard total. Similarly, whether the teacher has only completed an undergraduate program or has obtained a full masters degree, a teacher's level of education does not appear to have any relation to his or her balanced scorecard

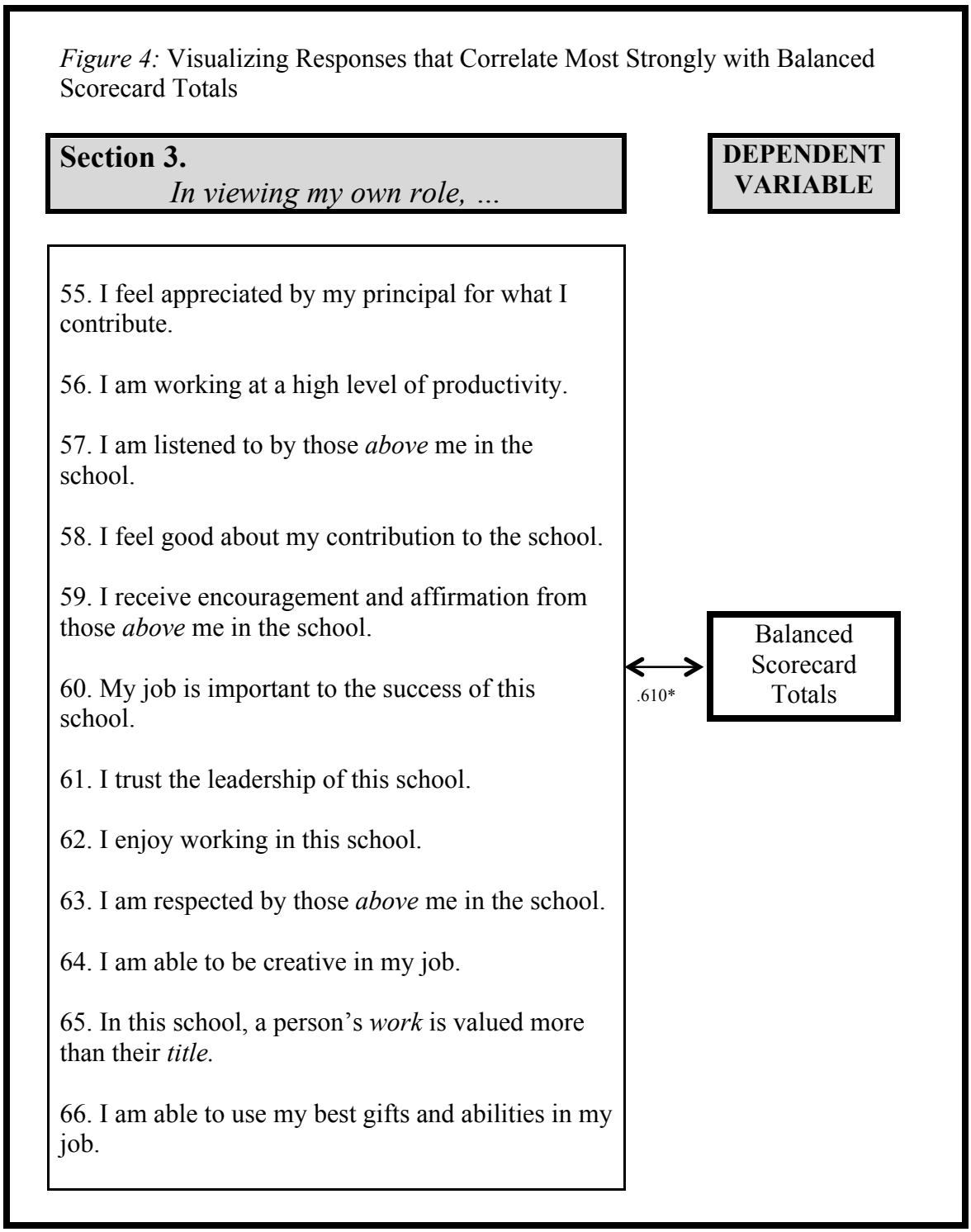
total. This finding refutes *Common Assumption 1*. Contrary to what many assume, career variables have no association to teachers' balanced scorecard totals.

Meanings and Implications of Findings

In this section, I explore what the findings of my research could mean. First, I investigate more narrowly the content of the affirmations in OLA Section 3, which had a strong positive correlation to balanced scorecard totals. Then, I discuss the meanings of these findings in the form of exploratory ponderings. The questions I submit extend themselves beyond the scope of this study. I offer these questions as loose but grounded threads. I submit these threads desiring that through further research they may connect to overlapping theories and complementary works of scholarship. Finally, implications are drawn to theory, practice, and policy.

Figure 4 enumerates the responses that had a statistically significant positive correlation with balanced scorecard totals. The independent variable depicted in Figure 4 was operationalized as OLA Section 3 (Self). These were the statements used to measure teachers' perceptions of leadership density as experienced by individual participants in their own role. Teachers that had the highest balanced scorecard totals were ones who affirmed these statements most strongly. Teachers who did not affirm these statements as strongly had relatively lower balanced scorecard totals.

Figure 4: Visualizing Responses that Correlate Most Strongly with Balanced Scorecard Totals



* $p < 0.5$

Theoretical Implications

The statements in OLA Section 3 (Self) assess the extent to which each individual teacher feels respected and empowered by the supervising administrator (see Figure 4). In this context, Bandura's (1977, 1986, 1997) self-efficacy theory refers to the teacher's belief in his or her capacity to effectively deliver valued outcomes. More narrowly, self-efficacy considers the teacher's motivation, behavior, and social environment in relation to performance (1997). The survey questions in OLA Section 3 (Self) resonate with teacher self-efficacy. This connection causes me to ponder: How tightly do statements in OLA Section 3 align with teacher self-efficacy theory? Does teacher self-efficacy predict teacher effectiveness?

Implications for Practitioners

This research reinforced to me that Laub's (2003) leadership theory is a worthy guide for leaders at all levels within the organization. I acknowledge the importance for supervisors to possess those traits as part of their identity and model them with integrity (Palmer, 2010), Yet, I wonder whether that is enough. How much do leader dispositions and behaviors matter? Which leader dispositions and behaviors do teachers perceive as contributing to or hindering their effectiveness? I am curious to better understand what opportunities and interactions teachers most value. Perhaps just as important, when do teachers not feel stifled or undervalued?

The merits of leadership density operationalized as OLA Section 1 (School-wide) and OLA Section 2 (Supervisor) as isolated independent variables cannot be discredited by this study alone. Given the small size of *n* in this study, further research is needed. Yet, administrators must not underestimate the impact that young teachers are capable of making. Hiring committees must

not assume veteran or highly educated teachers will automatically outperform less experienced candidates.

This study showed that when a teacher's interactions with a supervisor and colleagues correspond to the ideals proposed in Laub's (2003) framework, his or her balanced scorecard total was proportionally higher. This leads me to speculate about the degree to which this experience must be individualized. Is it sufficient for a supervisor to follow policies and systems that align with Laub's framework? To what extent ought supervisors labor to create conditions that cause teachers to strengthen their own identity and integrity (Palmer, 2010) as well? What experiences and exercises contribute to developing such dispositions and behaviors?

These findings have caused me to reflect upon which experiences and opportunities may have been most significant for highly effective teachers at my school. I have particularly considered those practices which I think may have been most significant for individual teachers to experience self-efficacy, encouragement, and empowerment in their own role. Three leadership habits, which I will refer to as *keystone practices*, emerge at the forefront. My team and I have piloted, revised, and improved each of these each keystone practices over the past three years:

Keystone Practice 1: *Involve teachers on important decisions in meaningful ways.* Our school has made it a priority and a discipline to invite teachers to actively participate in processing a decision, developing a tool, or synthesizing a significant recommendation for policy. Although these extra steps generally require more time and effort, we have sought to make it a leadership habit to create genuine teacher partnership opportunities for teachers. When developing an important organizational tool such as balanced scorecards, updated job descriptions, or an assessment calendar, we first share these documents with teachers in draft form and invite open,

robust dialogue in small, grade-level team meetings. The role of the administrator in this process is to actively listen, ask clarifying questions, seek to understand teachers' perspectives, and call all stakeholders to ultimately discern together the implications of each decision for students.

Keystone Practice 2: *Protect time, space, and energy for meaningful one-on-one conversations between administrators and teachers.* Too often, important investments of time can be hijacked by demands that feel more urgent. Deskwork and similar tasks can quickly crowd out time for people. Aware of this tendency, my teammates and I have set weekly rhythms in our calendars, designed to protect time for strategic, proactive, constructive conversations with individual teachers. This leadership habit has been well received by teachers and has been vital for involving valued stakeholders at each stage of key improvement processes.

Keystone Practice 3: *Design empowering, job-embedded, teacher-led professional development opportunities.* Perhaps my favorite example of an organizational practice that I believe has contributed to individualized leadership density is what we call *Wednesday Workshops*. Each month, three workshops are offered simultaneously in classrooms. Every teacher signs up in advance to learn about one of the three topics offered on the menu for that month. Preparation for a workshop is not burdensome for the presenter, because Wednesday Workshops are designed as an opportunity for teachers to simply share what they are already doing. I have noticed how Wednesday Workshops have empowered teachers to multiply some of the most effective tools, ideas, approaches, and skills from their practice to other classrooms throughout the school. These targeted instruction opportunities have allowed our staff to learn from each other, practice leadership density, and enjoy compressed, individualized professional development.

Implications for Policy

This study could contribute to shifting the trajectory of policy toward giving increased value to protecting positive, collaborative, and authentic relationships among schools' stakeholders. School boards, administrators, and policymakers may further consider ways to design regular and meaningful opportunities for educators to contribute to important decisions regarding the future of their schools.

Many school districts' salary schedules assign monetary value to years of teaching experience and education level without any further qualifications. According to this research, career variables have no association to teachers' balanced scorecard totals. Because this common assumption is discredited by this study, policy-makers may prudently reconsider this common practice.

Suggestions for Future Study

Future studies should examine whether any associations exist between the variables that were found to have no correlation to the dependent variable of this research. Additionally, they should investigate whether predictive relationships exist among the variables. As *n* for this study was 38, future research may replicate this study using a larger sample size. A longitudinal study would offer additional insights into each independent variable in relation to balanced scorecard totals. A multi-site study would require all participating schools to use a comparable balanced scorecard, a comparable operationalization of leadership density, and use individual teachers as the unit of measurement. Such a study could accelerate efforts to distinguish between each dimension of leadership density (school-wide, supervisor, self, and on aggregate).

The extent to which an individual teacher experiences leadership density within his or her own role had a strong positive correlation to the balanced scorecard total. Therefore, future

research should investigate which opportunities and interactions contribute most directly to this experience and which detract. Specific strategies should be developed for supervisors to create conditions and implement practices that empower teachers. Specifically, future research should seek to better understand which specific behaviors most directly contribute to a teacher's ability to affirm each statement in OLA Section 3 (Self). Namely, what do teachers report most strongly contributes to their ability to affirm that:

- I feel appreciated by my principal for what I contribute?
- I am working at a high level of productivity?
- I am listened to by those *above* me in the school?
- I feel good about my contribution to the school?
- I receive encouragement and affirmation from those *above* me in the school?
- My job is important to the success of this school?
- I trust the leadership of this school?
- I enjoy working in this school?
- I am respected by those *above* me in the school?
- I am able to be creative in my job?
- In this school, a person's *work* is valued more than their *title?*
- I am able to use my best gifts and abilities in my job?

Conclusions

Because of this study, many of my assumptions about teacher effectiveness have been challenged. A lifetime is too short to fully understand the role of leadership in education. All stakeholders of a school can benefit when teachers experience leadership density in their role.

The insights this research yielded reinforce the tremendous opportunity and responsibility I have to build teachers up.

The metaphors people use affect their outlook, which in turn shapes their behavior. From this research, one extended metaphor in particular persists in my imagination. It is the image of a deep-rooted fruit-bearing tree. Every tree was once a seed. A seed must first be buried in the soil, and it must then practically die before it can grow roots. As the roots absorb nutrition, the plant grows. The culminating evidence of its maturity comes when the tree finally bears fruit. A seed multiplies itself. As I synthesize what I have learned in this study, I can draw parallel applications. Schools exist to multiply. Every teacher once occupied a student's desk. Over the course of many years, various teachers engaged that student, coached her, corrected her, and encouraged her. Eventually, she graduated from college and was hired to teach at another school, where dozens of students in turn learn at her feet. One of her students will likely become a teacher one day. Regardless of each student's future life work, schools exist to multiply.

Every educator is a leader – teachers and administrators alike. I am increasingly convinced that leaders can only grow when their attitudes and actions are grounded in nutritious soil. To this point in my life-long exploration, I have found no philosophical soil more nutritious than that described by Mason (2012), Laub (1999), Sergiovanni (2002, 2004), and Palmer (2010). If these educational thinkers were agronomists, their recommendation for a bountiful harvest would be this: offer clear direction, uphold rich content, value listening, practice mutual respect, cultivate trustworthiness, display authenticity, empower teammates, build community, and embrace accountability for producing valued outcomes. To the extent that a teacher's balanced scorecard total represents that which the school aims to multiply, this study confirmed that as teachers experienced many of these ideals, they bore good fruit.

This research gives credence to the philosophy that healthy growth stems from individualized caregiving and empowerment (Noddings, 2013). I am encouraged by what this inference could mean for a school community: that educators are most fulfilled and effective when they consistently experience interactions that are honoring, dialogue that is mutually respectful, and relationships that grow with trustworthiness. I am committed to hone the personal dispositions, cultivate the professional practices, and implement the organizational structures that contribute to an ethos of leadership density and self-efficacy for teachers. As time, energy, and resources are limited, this strategic focus may be the best way for me to continue growing my school through each season toward a fruitful future.

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APPENDICES

APPENDIX A:

BONUS SCORECARD CALCULATOR

Bonus Scorecard **Teacher Name**
Grade

NWEA Growth
(30%)

110% - 140%

School-wide Growth 5%

Skill Groups Growth 10%

Grade-level average 15%

Bonus Points

Parent Survey
(20%)

Question 10 Score

3.4 - 3.9

Bonus Points

Supervisor Evaluation
(50%)

Instructional Skill
Content Knowledge
Professional
Relationships
Classroom Leadership
Communication
Teamwork & Collaboration

Bonus Points

TOTAL BONUS POINTS - %

(Bonus Potential $2000) **AMOUNT**

APPENDIX B:

PARENT SURVEY

For each statement below, select a response that best summarizes how you have come to view your student's teacher this year.				
1. Is a good role model and demonstrates our school's character traits.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
2. Is prepared for class each day with engaging lessons.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
3. Establishes positive and open communication with my child and me.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
4. Encourages my child to do his/her best in academics and character.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
5. Has enthusiasm for learning and student success.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
6. Adapts his/her teaching style to needs of students in the class.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
7. Ensures that students are treated well by upholding the social contract.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
8. Has high expectations of each student in the class.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
9. Provides individualized or small group support for learning when needed.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree
10. Is an asset to our school.				
Answer Options	Strongly Disagree	Disagree	Agree	Strongly Agree

APPENDIX C:

SUPERVISOR EVALUATION

Teacher's Name: **Supervisor:** **Date:**

1. Classroom Leadership

	Immediate Correction	Needs Improvement	Meets Standard	Exceeds Standard	Exemplary
Uses the Social Contract and Four Questions	1	2	3	4	5
Cultivates community, captures hearts, earns respect	1	2	3	4	5
Establishes and protects a positive environment	1	2	3	4	5

Category average: **(out of 5)**

0 %

2. Content Knowledge

	Immediate Correction	Needs Improvement	Meets Standard	Exceeds Standard	Exemplary
Demonstrates a mastery of the subject(s)	1	2	3	4	5
Helps students appreciate big picture CK ideas and themes	1	2	3	4	5
Appropriately infuses relevant & engaging supporting content	1	2	3	4	5

Category average: **(out of 5)**

0 %

3. Instructional Skill

	Immediate Correction	Needs Improvement	Meets Standard	Exceeds Standard	Exemplary
Sets expectations of learning goals & gives helpful feedback	1	2	3	4	5
Engages students with meaningful lesson/unit plans	1	2	3	4	5
Guides students to interact with, deepen, & test knowledge	1	2	3	4	5

Category average: **(out of 5)**

0 %

4. Professionalism

	Immediate Correction	Needs Improvement	Meets Standard	Exceeds Standard	Exemplary
Is dependable, proactive, and constructive in meetings	1	2	3	4	5
Seeks and offers constructive feedback for ongoing growth	1	2	3	4	5
Cultivates trustworthy, reliable, & positive reputation	1	2	3	4	5

Category average: **(out of 5)**

0 **%**

5. Communication

	Immediate Correction	Needs Improvement	Meets Standard	Exceeds Standard	Exemplary
Responds promptly to contact by phone & email (EXCEL)	1	2	3	4	5
Keeps IC, website, folders, homework updated / current	1	2	3	4	5
Contacts each student monthly or Writes monthly newsletter	1	2	3	4	5

Category average: **(out of 5)**

0 **%**

6. Teamwork & Collaboration

	Immediate Correction	Needs Improvement	Meets Standard	Exceeds Standard	Exemplary
Contributes to grade level team or Specials department	1	2	3	4	5
Shares resources; creates materials for the team	1	2	3	4	5
Affirms others' strengths; models good & getting better	1	2	3	4	5

Category average: **(out of 5)**

0 **%**

Year total ___ /30 points or ___ %

APPENDIX D:

ORGANIZATIONAL LEADERSHIP ASSESSMENT – EDUCATION VERSION

General Instructions

The purpose of this instrument is to allow schools to discover how their leadership practices and beliefs impact the different ways people function within the school. This instrument is designed to be taken by people at all levels of the organization including teachers/staff, managers and school leadership. As you respond to the different statements, please answer as to what you believe is generally true about your school or school unit. Please respond with your own personal feelings and beliefs and not those of others, or those that others would want you to have. Respond as to how things *are* … not as they could be, or should be.

Feel free to use the full spectrum of answers (from Strongly Disagree to Strongly Agree). You will find that some of the statements will be easy to respond to while others may require more thought. If you are uncertain, you may want to answer with your first, intuitive response. Please be honest and candid. The response we seek is the one that most closely represents your feelings or beliefs about the statement that is being considered. There are three different sections to this instrument. Carefully read the brief instructions that are given prior to each section. Your involvement in this assessment is anonymous and confidential.

IMPORTANT ….. please complete the following

School being assessed: _____

Name of your work unit: _____

Indicate **your present role/position** in the school. Please **circle one**.

1 = School Leadership (top level of leadership)

2 = Management (supervisor, manager)

3 = Teacher/Staff (member, worker)

Please provide your response to each statement by placing an **X** in one of the five boxes

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	**Strongly Agree**

Section 1

In this section, please respond to each statement as you believe it applies to **the entire school** including teachers/staff, managers/supervisors, and school leadership.

In general, people within this school ….

		1	2	3	4	5
1	Trust each other					
2	Are clear on the key goals of the school					
3	Are non-judgmental – they keep an open mind					
4	Respect each other					
5	Know where this school is headed in the future					
6	Maintain high ethical standards					
7	Work well together in teams					
8	Value differences in culture, race & ethnicity					
9	Are caring & compassionate towards each other					
10	Demonstrate high integrity & honesty					
11	Are trustworthy					
12	Relate well to each other					
13	Attempt to work with others more than working on their own					
14	Are held accountable for reaching work goals					
15	Are aware of the needs of others					
16	Allow for individuality of style and expression					
17	Are encouraged by supervisors to share in making *important* decisions					
18	Work to maintain positive working relationships					
19	Accept people as they are					
20	View conflict as an opportunity to learn & grow					
21	Know how to get along with people					

Section 2 In this next section, please respond to each statement as you believe it applies to the **leadership** of the school including managers/supervisors and school leadership

Managers/Supervisors and the School Leadership in this School …

		1	2	3	4	5
22	Communicate a clear vision of the future of the school					
23	Are open to learning from those who are *below* them in the organization					
24	Allow teachers/staff to help determine where this school is headed					
25	Work in collaboration with teachers/staff, not separate from them					
26	Use persuasion to influence others instead of coercion or force					
27	Don't hesitate to provide the leadership that is needed					
28	Promote open communication and sharing of information					
29	Empower teachers/staff to make *important* decisions					
30	Provide the support and resources needed to help teachers/staff meet their professional goals					
31	Create an environment that encourages learning					
32	Are open to receiving criticism & challenge from others					
33	Say what they mean, and mean what they say					
34	Encourage each person to exercise leadership					
35	Admit personal limitations & mistakes					
36	Encourage people to take risks even if they may fail					
37	Practice the same behavior they expect from others					
38	Facilitate the building of community & team collaboration					
39	Do not demand special recognition for being leaders					
40	Lead by example by modeling appropriate behavior					
41	Seek to influence others from a positive relationship rather than from the authority of their position					
42	Provide opportunities for all teachers/staff to develop to their full potential					
43	Honestly evaluate themselves before seeking to evaluate others					
44	Use their power and authority to benefit the teachers/staff					
45	Take appropriate action when it is needed					

Managers/Supervisors and the School Leadership in this School …

		1	2	3	4	5
46	Build people up through encouragement and affirmation					
47	Encourage teachers/staff to work *together* rather than competing against each other					
48	Are humble – they do not promote themselves					
49	Communicate clear plans & goals for the school					
50	Provide mentor relationships in order to help people grow professionally					
51	Are accountable & responsible to others					
52	Are receptive listeners					
53	Do not seek after special status or the "perks" of leadership					
54	Put the needs of the teachers/staff ahead of their own					

Section 3

In this next section, please respond to each statement, as you believe it is true about **you personally** and **your role** in the school.

In viewing my own role …

		1	2	3	4	5
55	I feel appreciated by my principal for what I contribute					
56	I am working at a high level of productivity					
57	I am listened to by those *above* me in the school					
58	I feel good about my contribution to the school					
59	I receive encouragement and affirmation from those *above* me in the school					
60	My job is important to the success of this school					
61	I trust the leadership of this school					
62	I enjoy working in this school					
63	I am respected by those *above* me in the school					
64	I am able to be creative in my job					
65	In this school, a person's *work* is valued more than their *title*					
66	I am able to use my best gifts and abilities in my job					

APPENDIX E:

ETHOS' EXISTING RAW DATA

Feedback Mechanism: Balanced Scorecard		Direct Observable Career Variables		Perceptions of Leadership Density			
Teacher Code	Bonus Scorecard	Years in Teaching	Level of Education	OLA Total	OLA Section 1 (School-wide)	OLA Section 2 (Supervisor)	OLA Section 3 (Self)
0134	0.78	3	1	0.77	0.84	0.79	0.68
0105	0.83	2	1	0.75	0.77	0.76	0.71
0148	0.89	3	1	0.84	0.74	0.93	0.85
0119	0.91	10+	1	0.79	0.77	0.79	0.80
0137	0.82	3	1	0.75	0.80	0.77	0.69
0111	0.73	1	1	0.85	0.77	0.96	0.82
0109	0.86	10+	1	0.85	0.79	0.95	0.82
0166	0.74	2	1	0.71	0.69	0.74	0.69
0131	0.69	2	1	0.74	0.77	0.79	0.66
0170	0.86	2	1	0.80	0.75	0.85	0.80
0139	0.81	10+	3	0.68	0.67	0.64	0.72
0101	0.82	7	1	0.76	0.71	0.77	0.80
0124	0.83	2	3	0.88	0.83	0.94	0.88
0108	0.85	2	1	0.67	0.64	0.67	0.71
0123	0.85	4	1	0.79	0.76	0.85	0.75
0154	0.86	10+	3	0.70	0.66	0.70	0.72
0165	0.80	10+	1	0.68	0.74	0.68	0.63
0138	0.84	2	1	0.86	0.75	0.93	0.89
0128	0.88	2	1	0.80	0.80	0.87	0.72
0153	0.98	4	2	0.84	0.74	0.93	0.85
0106	0.96	10+	1	0.86	0.78	0.98	0.83
0143	0.78	1	1	0.95	0.94	0.99	0.91
0143	0.75	5	1	0.89	0.85	0.98	0.83
0136	0.87	2	1	0.77	0.65	0.88	0.77
0164	0.86	3	2	0.78	0.78	0.86	0.71
0107	0.75	1	2	0.88	0.81	0.95	0.88
0115	0.93	4	1	0.88	0.85	0.89	0.91
0168	0.73	1	1	0.83	0.73	0.98	0.77
0150	0.76	1	1	0.90	0.91	0.98	0.80
0152	0.86	5	3	0.90	0.76	1.00	0.92
0180	0.85	5	1	0.83	0.80	0.85	0.85
0181	0.82	2	1	0.73	0.77	0.82	0.61
0182	0.91	3	1	0.90	0.85	0.90	0.94
0183	0.89	7	2	0.87	0.83	0.88	0.90
0184	0.90	10+	2	0.87	0.82	0.87	0.93
0185	0.88	2	1	0.83	0.80	0.85	0.83
0186	0.91	2	1	0.88	0.85	0.90	0.90
0187	0.83	1	2	0.73	0.75	0.80	0.64

APPENDIX F:

LETTER OF INSTITUTIONAL PERMISSION

Letter of Institutional Permission

To Whom It May Concern:

The school at which I serve as Business Manager, which includes all Human Resource responsibilities, has willfully and ethically shared raw data with Jason Edwards from the 2014-2015 school year. I understand that he has given our school the pseudo name ETHOS for the purposes of his dissertation. I will refer to our organization by this name in this letter to further honor the anonymity of participants and of our school. For this same reason, I am omitting the school's logo, name, and standard heading from this letter.

I witnessed Jason Edwards' presentation of Laub's Organizational Leadership Assessment to the ETHOS Board of Directors. At this presentation, he also shared the dual purpose that this data would be used for: as formative feedback for the school leadership team and for future research that he intended to conduct. ETHOS' Board of Directors consented to his use of the data for these purposes at this meeting and thanked him for his transparent presentation.

I personally coded all teacher names when attaching them to scores and survey responses. The only document I shared with Jason Edwards had teachers' names omitted from it to protect the confidentiality of our employees that are participants in his research project. ETHOS will keep teacher bonus scorecards, parent survey results, and supervisor evaluations according to its record retentions policy. The spreadsheet that associates teacher names to numerical codes was created especially to protect the confidentiality of ETHOS staff. ETHOS will dispose of documents that tie teacher names to responses on the Organizational Leadership Assessment.

Sincerely,

Helen Sneed 8-24-15

Helen Sneed, Business Manager Date

APPENDIX G:

PEARSON PRODUCT-MOMENT CORRELATION COEFFICIENTS MATRIX

Sample size: n = 38 Critical value (2%)		***Bonus Scorecard***
Years in Teaching	Pearson Correlation Coefficient	*0.51788*
	R Standard Error	*0.08131*
	t	*1.81618*
	p-value	*0.10272*
	H0 (2%)	*accepted*
Level of Education	Pearson Correlation Coefficient	*-0.0014*
	R Standard Error	*0.11111*
	t	*-0.00419*
	p-value	*0.99675*
	H0 (2%)	*accepted*
OLA Total	Pearson Correlation Coefficient	*0.30559*
	R Standard Error	*0.10073*
	t	*0.96284*
	p-value	*0.36078*
	H0 (2%)	*accepted*
OLA Section 1 (School-wide)	Pearson Correlation Coefficient	*0.05888*
	R Standard Error	*0.11073*
	t	*0.17694*
	p-value	*0.86347*
	H0 (2%)	*accepted*
OLA Section 2 (Supervisor)	Pearson Correlation Coefficient	*0.15394*
	R Standard Error	*0.10848*
	t	*0.46738*
	p-value	*0.65134*
	H0 (2%)	*accepted*
OLA Section 3 (Self)	Pearson Correlation Coefficient	*0.60989*
	R Standard Error	*0.06978*
	t	*2.30876*
	p-value	*0.04633*
	H0 (2%)	*accepted*