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ABSTRACT

The purpose of this study is to show how together trust along with transformational leadership moderates the effect of economic disadvantage on instructional capacity, defined by collective teacher efficacy, in urban schools. More specifically, using survey and administrative secondary dataset from one large urban district (N=74 schools) applied in practice to make decisions, this study examines the relationship between faculty trust in principals, transformational leadership, independently, and as an interaction, on collective teacher efficacy. This study seeks to extend the literature through evidence of a greater effect of the interaction of trust and transformational leadership on collective teacher efficacy while lessening urban school context barriers. Schools often struggle to foster much-needed trust between site administrators and teachers, which influences instructional capacity. Transformational leadership behaviors provide many strategies toward enhancing capacity through various educational factors. One significant educational factor in the quest to improve instructional capacity is a school culture of trust (Adams, 2013; Adams, 2008; Adams & Forsyth, 2009; Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Leithwood & Jantzi, 1999; Tschannen-Moran, 2014). When leaders use transformational behaviors in fostering relationships with teachers, trust is enhanced, promoting a positive educational environment that leads to higher levels of instructional capacity (Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Tschannen-Moran, 2014). A vast quantity of research related to faculty trust in principals, a contributing component to collective trust, and transformational leadership behaviors exists; however, this study is examining, in particular, their individual and combined correlation relationships on
collective teacher efficacy of a Midwestern urban school. Extending the scope of this multidimensional leadership, which is the interaction, lends itself to assisting practitioners in understanding faculty perspectives. The faculty perspectives of the leadership behaviors can help develop new strategies to implement into their leadership skillset to foster positive effects on collective teacher efficacy. Therefore, the purpose of this research is to quantitatively investigate transformational leaders’ behaviors on instructional capacity by focusing on faculty trust in principal leadership. This study provides correlational evidence between transformational leadership’s behaviors and instructional capacity via faculty perceptions of trust in principals. The findings for this study include ~8% variance explained for background variables on collective teacher efficacy. Faculty trust in principals and school background variables indicates ~18% variance explained on collective teacher efficacy. Transformational leadership and school background variables indicates ~24% variance explained on collective teacher efficacy. The interaction and the school background variables indicates ~26% variance explained on collective teacher efficacy. This study is necessary to expose new avenues for practitioners and organizations to guide more meaningful principal leadership behaviors which influence a school’s instructional capacity.
Trust, Transformational Leadership, and Collective Teacher Efficacy in an Urban School Setting

Chapter 1: Introduction

Problem Statement

Urban schools encounter many barriers to student success (Shankar-Brown, 2015) that are unique to them in contrast to neighboring affluent schools. There is a disparity of resources in urban schools which does not exist in affluent schools (Adams, 2013). Affluent parents can offset these limitations on school budgets by contributing their financial resources for extracurricular educational experiences, which do not occur in the urban, impoverished counterparts. Exposure to external educational experiences can augment students’ academic success, or the absence of those opportunities can limit and marginalize educational circumstances. Urban schools must withstand through the absence of these extra home resources and still contend with accountability and responsibility for maintaining and improving student achievement. The lack of parental resources leads to negative social structural conditions. Urban schools possess negative social structural conditions which stem from inequalities present in the surrounding, urban community (Ainsworth-Darnell & Downey, 1998; Shankar-Brown, 2015). Urban schools endure overcrowding, high levels of poverty (Adams, 2013), alarming disparities (Shankar-Brown, 2015), limited resources (Berne & Stiefel, 1994; ), highly mobile minorities, cultural opposition to educational enhancement (Ogbu, 1978; 1991; Ainsworth-Darnell & Downey, 1998) and lack of overall equity (Berne & Stiefel, 1984; 1994; Lee & Smith, 1996; Resnick, 1999; Shields, 2010) compared to the neighboring affluent schools. With all of these obstacles, teachers and leaders continue to entrench
themselves in their students’ lives and educational realms to enhance and educate productive citizens of the future.

**Purpose of the Study**

To help address these issues in urban schools, the purpose for this study is to exhibit the relationships between faculty trust in principals and transformational leadership behaviors individually and in cooperation as an interaction to effect collective teacher efficacy. It is important to understand these relationships. Understanding their relationships induces and fosters a thriving productive collective teacher population in an ever evolving urban school context. This study analyzes the relationships between characteristics of urban schools on the collective teacher efficacy component to understand the extent that transformational leadership and trust might influence it. Transformational leaders, who are charismatic, inspire trusting relationship with followers creating a positive output (Bass & Riggio, 2006). Charismatic behaviors are a contextual factor associated with the four I’s of transformational leadership (Pillai & Meindl, 1998; Urick & Sprinkle, 2013); which the basis of the secondary dataset survey questions for the transformational leadership section. Transformational leaders are visionary and can compel teachers to follow the vision, which is inspirational motivation (Urick & Sprinkle, 2013). Transformational leadership provides intellectual stimulation, in which they promote teachers to become innovative and uplift their skills above normal expectations (Northouse, 2010) and think and act creatively (Urick & Sprinkle, 2013). Transformational leaders foster teachers to maximize their efficacy potential through promoting individualized consideration (Northouse, 2010; Urick & Sprinkle, 2013). These leadership and teacher connections are a valued portion of
school culture (Fullan, 2008; Schriesheim, Castro, & Cogliser, 1999; Urick & Bowers, 2014) and “leader characteristics need to be considered within milieu of an environment” (Urick & Sprinkle, 2013).

Additionally, the relationship between trust and instructional capacity improvement positively influences the school culture (Jaquith, 2012). The impetus for this investigation is for transformational leadership to take into consideration the faculty perceptions of leadership behaviors in relation to leadership’s fostering of faculty trust as the social stimulus for ameliorating instructional capacity. Since principals possess a prevalent control of student achievement (Marks & Printy, 2003; Robinson, Lloyd & Rowe, 2008; Urick, 2012) and such a high level of influence on instructional capacity, they should evoke positive communicative and collaborative behaviors with teachers. In other words, principals influence student learning through their work with teachers (Leithwood, 1994; Hallinger & Heck, 1996; Marzano, Waters, and McNulty, 2003). The faculty perceptions offer opportunities for adjusting leadership behaviors forged in a trusting communal atmosphere. The malleable factor of faculty trust in leadership is a valued portion of the leaders and teachers’ relationships. Trust formation engages the influence of transformational leadership behaviors from faculty’s perceptions of collective efficacy and is “systematically associated with student achievement” (Goddard, Hoy, & Hoy, 2000, p. 480). Through building trust with teachers, and in turn transformational leadership, principals are able to best influence students which is most of the time beyond their direct control. The results of this study show that faculty trust in principals, transformational leadership behaviors, and the interaction influences collective teacher efficacy while lessening the ramifications of school background
variables. The interaction produced a moderate effect on collective teacher efficacy compared to the other two variables of interest.

Trust and transformational leadership have been shown to induce and foster a thriving, productive urban school to advance student achievement in an ever evolving urban school context in which additional restrictive barriers overshadow the educational environment compared to neighboring affluent schools (Bryk & Schneider, 2003). This study examines the faculty’s perspective of the leadership behaviors in order to enrich the quality of leadership skills to include a multidimensional aspect. The enhanced understanding of the relationship correlations extends the existing scholarly and practitioner research and provides insight for local leaders into one specific urban district’s dynamics and nuances.

There are several warrants for this investigation to occur: (a) examining the interaction of trust and transformational behaviors, which can be learned and implemented in school leadership practice; (b) examining the relationships which efficacy and trust can prevail upon the leaders and followers’ relationships; and (c) the connection these behaviors can have on improving the collective teacher efficacy. Leadership behaviors include building equity in schools to improve student success. Resnick (1999) discusses “We must raise overall achievement levels, and we must make opportunities for achievement [to be] more equitable” (p. 14). With these equitable goals toward improvements in student achievement, the transformational leadership behaviors might influence instructional capacity.

The questions below examine this specific context on how leaders and teachers work together in a particular context of the urban district.
**Guiding Question**

1. How do both transformational leadership and faculty trust in principal work to improve instructional capacity [collective teacher efficacy] in urban schools?

**Research Questions**

1. What is the descriptive relationship between context variables and faculty trust in principals and transformational leadership behaviors?
2. To what extent does teacher perception of faculty trust in principal influence instructional capacity as collective teacher efficacy while controlling for school background variables?
3. To what extent does teacher perception of transformational leadership have an independent effect on instructional capacity as collective teacher efficacy while controlling for school background variables?
4. To what extent does the interaction between teacher perception of transformational leadership and faculty trust in principal influence instructional capacity as collective teacher efficacy while controlling for school background variables?

**Background and Framework of Study**

With urban schools continually adding faculty and students at an alarming rate, it can be difficult to manage positive professional relationships among principals and teachers. Thus, the need exists for effective transformational leadership behaviors and faculty trust in principals to influence instructional capacity construct through its component of collective teacher efficacy.
Collective Teacher Efficacy

Collective teacher efficacy, the teacher component in instructional capacity, measures teachers at the school level on positive facets that might relate to student success (Brinson and Steiner, 2007). One facet is that teachers never give up when working with students, even if there are obstacles such as students not wanting to learn (Aas & Brandmo, 2016; Darling-Hammond, 1988; Forsyth, Adams, & Hoy, 2011; Leithwood, 1992; Leithwood et al., 1999; Leithwood, Louis, Anderson & Wahlstrom, 2004, Marks & Printy, 2003; Ross & Gray, 2006; Smith, Hoy, Sweetland, 2002).

Faculty Trust in Principals

Faculty trust in principal center on teachers perceiving trust in their principals ((Bryk & Schneider, 2002; Bryk, Sebring, Kerbow, Rollow & Easton, 1998; Leithwood & Sun, 2009; Nader, 1997; Pitner, 1988; Roeser, Arbreton & Anderman, 1993; Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006; Synar & Maiden, 2012). This trust is fostered due to teachers having faith in the integrity of the principal (Adam & Forsyth, 2009; Bryk & Schneider, 2002; George, 2003; Podsakoff, Mackenzie, Moorman, & Fetter, 1990). Trust is reciprocated by the teachers to the principal (Ayers, Quinn, & Stovall, 2009). Teachers rely on the principal (Aas & Brandmo, 2016; Law et al., 2007; Tschannen-Moran, 2014). The teachers believe that the principal is competent in fulfilling his/her principal duties (Adams, 2014; Baier, 1994; Brimley, Verstegen, & Garfield, 2011; Bryk & Schneider, 2002; Fullan, 2005; Hipp, 1996; Marzano, 2005; Newmann, King, & Youngs, 2000; Tschannen-Moran, 2014). Trust is produced between leaders and teachers through openness and transparency (Avolio & Gardner, 2005; Urick & Bowers, 2014). Principals are supportive of teachers (Fenn & Mixon, 2011; Fullan, 2014).

Transformational Leadership Behaviors

The transformational leadership behaviors for this study are based on charismatic qualities of leadership (Boal & Bryson, 1988; Hunt, Boal, & Dodge, 1999) and the 4 I’s: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Aas & Brandmo, 2016; Leithwood et al. 1999) to “…lift ordinary people to extraordinary heights (Boal & Bryson, 1988, p. 11; OCEP, 2015, p. 16) “by inspiring followers to perform beyond the level of expectation” (Bass, 1985;

Literature provides support for the relationship between faculty trust in principals to transformational leadership behaviors (Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Tschannen-Moran, 2014). To operationalize the indicators of the interaction, this study views the specific characteristics expressed in the multidimensional perspectives following. Both trust and transformational leadership

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promote openness and transparency between leaders and teachers (Avolio & Gardner, 2005; Urick & Bower, 2014). Trust and transformational leadership promote a supportive environment which is considerate of teachers (Fenn & Mixon, 2011; Fullan, 2014). Trust in principals is reciprocated by the teachers; thus transformational leaders are modeling the expected behaviors such as trust (Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Sweetland, 2001). The interaction promotes shared participation and shared responsibility among the leaders and teachers (Avolio & Gardner, 2005; Bryk & Schneider, 2002; Deal & Peterson, 1999; Forsyth, Adams, & Hoy, 2011, p. 170; Purkey & Smith, 1983).

Leaders foster an effective, amicable environment for teachers to perceive trust in them. This perceived trust in principals promotes teachers to assist and mentor one another for the betterment of the students’ success and the organization. The nurturing collaboration creates harmonious outcomes among the teachers. In order for collaboration to occur, transformational leaders need to be informed of their positive and negative trust and behavioral actions through their faculty’s perceptions. The transformational leaders must behave as a gardener tending the plot by nurturing the fruited vegetation and clearing away the weeds and dying plants (Grahn, 2008). As in a garden, teachers must be tended to and nurtured through support and collaboration to foster trusting relationships. Fostered trusting relationship building opportunities for teachers increase the efficacy. When efficacy is improved collectively, it improves instructional capacity. The previously stated congruous behaviors are conducive to the development of faculty trust and overall impacted instructional capacity.
There are three components of instructional capacity: teachers, curriculum, and students (Jaquith, 2012). One specific output concept to influence student success is collective teacher efficacy. Faculty trust in principals is one component to advance collective teacher efficacy. The reflections of faculty trust in principals can improve collective teacher efficacy by way of the teachers’ perspectives. When leaders understand teachers’ perspectives, they can use the knowledge to enhance their leadership skill set. This enhanced leadership skill set can guide leaders in fostering more productive relationships with their teachers. This investigation infers that there is a relationship between the transformational leadership behaviors and faculty trust in principal leadership directly and indirectly to instructional capacity [collective teacher efficacy].

The basis of this inference derives in existing data from The Oklahoma Center for Education Policy (OCEP) archive. This study seeks to examine the correlation relationships established from this secondary data analysis. The original data analysis was established by the OCEP (2015) to examine local teacher perspectives in a deidentified format. The scholars can examine this deidentified collective teacher perspectives to present a prescriptive resolve for the specific local Midwestern urban school district in which they reside.

Although faculty’s perceptions of trust in principals is a required social indicator to improving instructional capacity in conjunction with transformational leadership’s behaviors; nevertheless, the transformational leaders should possess a higher cognizance of how to respond and interject to faculty. Transformational leadership behaviors can conquer the separatist roles which can forge bonds of teacher/leader trust.
Significance

This study can be beneficial to scholars by revealing insights and expectations teachers place on their principal. For these practitioner leaders as principals, the teacher insights and expectations can lead them to become empathetic to the needs of their teachers. This process occurs through revealing the faculty perceptions of principals’ behaviors. The principal leaders should also see the need to increase their understanding of faculty perceptions in the importance of clarifying the organizational expectations of instructional capacity. Collective teacher efficacy component is specifically examined rather than the student and curriculum perspectives of instructional capacity. Collective teacher efficacy is a valuable component relating to transformational leadership behaviors due to the connection between faculty trust in principals and transformational leadership behaviors. The interrelationships are between the teachers and the leaders are reflective of one another. When teachers perceive trust and support from their leaders then they initiate teaching risks within their classrooms and with their students (Adams, 2013; Adams & Forsyth, 2009; Bryk & Schneider, 2002; Coleman, 1990; Forsyth, Adams, & Hoy, 2011; Tschannen-Moran, 2014). Thus, the need of transformational leadership in developing a strong collective teacher efficacy, which “signifies their perceptions regarding their skill to work together and their capacity to work” (Akan, 2013, p. 597). Jaquith (2012) states “Furthermore, little information exists about the processes and practices through which instructional capacity gets developed in schools and districts” (p. 2). The influence of the teachers, as in their collective teacher efficacy, is the type of instructional capacity examined in this study.
Leaders need to receive feedback from their teachers to understand better how their behaviors and actions influence their leadership interrelationships with the teachers and to what extent the leaders foster trust with their teachers. This valuable feedback provides the undergirding for future maneuvers and actions by the leaders toward the teachers. When transformational leaders augment their behaviors by fostering faculty trust, the collective teacher efficacy is influenced in a positive manner to impact student achievement.

Outline of Dissertation

In chapter one, an overview of this secondary study was provided including the context, background, and the definitions for investigational establishment. In chapter two, the review of literature extensively covers the reasoning behind the investigation. The literature review also supports the necessity of this inquiry for both scholarship and practitioner purposes. Chapter three then lays out the methods and basic procedures aligned with the use of secondary dataset from OCEP (2015). Multiple regression is discussed as the main analysis used to examine the secondary dataset. Chapter four provides the results for this investigation. Chapter five situates the implications of this study and for the practitioner. Future research possibilities are presented and discussed.

Key Terms

The key terms are listed below for the investigation in the relationship between trust and transformational leadership behavior and instructional capacity.

improvement” (p. 364). Principals develop the conditions for effective teaching to take place.

**Collective Teacher Efficacy**-Hoy and Miskel state “Collective efficacy is the shared perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students” (p. 188).

**Instructional capacity**-The essential condition of capacity for teacher effectiveness to provide high quality teaching, which develops constructive social interactions to enhance student learning (Adams, 2013; Bain, Walker, & Chan, 2011). Adams (2013) defines instructional capacity as “resources within schools that enhance teaching effectiveness and social processes that facilitate knowledge creation and professional learning” (p. 364). For this inquiry instructional capacity is examined from a collective teacher efficacy perspective. The teacher component of instructional capacity is examined as collective teacher efficacy (Jaquith, 2012). Teacher efficacy is the individual teacher’s capabilities

**Teacher Efficacy**-Ashton (1985) states that teacher efficacy is “their belief in their ability to have a positive effect on student learning (Adams & Forsyth, 2006; Bandura, 1993; Goddard, 2002; Tschannen-Moran & Woolfolk Hoy, 1998; p. 142). This is based on the individual teacher, rather than a collective view. Multiple teacher efficacy perspectives form collective teacher efficacy.

**Transformational leadership**-Transformational leadership encompasses behaviors to influence followers through modeling and leading by example, motivational, inspirational, visionary, supportive, and openly transparent in communicative and collaborative skills for fulfillment of a higher purpose either within others for overall

**Trust**-Tschannen-Moran (2014) defines “Trust is manifest in situations where we must rely on the competence of others and their willingness to look after that which is precious to us” (p. 17). Tschannen-Moran (2014) includes five facets to describe trust: “benevolence, honesty, openness, reliability, and competence” (p. 21).
Chapter 2: Literature Review

Introduction to Literature Review

This chapter communicates how the inquiry is situated in the contemporary literature on faculty trust in principals, transformational leadership behaviors’ relationship, and then the conjunctive relationship of faculty trust in principal and transformational leadership behaviors on instructional capacity. Through faculty trust in principals and transformational leadership behaviors, this investigation about these relationships on instructional capacity is based on the work of Adams (2013). Adams (2013) provides the empirical data support from the OCEP (2015) for using a specified form of collective trust (faculty trust in principals) and the relationship between transformational leadership behaviors and instructional capacity. Tschannen-Moran (2014) offers research supporting faculty perceptions of trust and leadership; therefore, explaining the relationship connection between faculty trust in principals and transformational leadership behaviors. This study uses the secondary dataset to help operationalize the characteristics of trust and transformational leadership and their commonalities which situate the interaction to exist. In examining the various facets of transformational leadership behaviors from Burns (1978) and trust (Bryk & Schnieder, 2002; Tschannen-Moran, 2014), it is apparent in this investigation that many of the qualities of faculty trust in principals correspond with transformational leadership behaviors in relation to instructional capacity. The corresponding qualities operationalize the interaction’s existence.

Faculty trust in principals and transformational leadership behaviors are important to the of collective teacher efficacy with collective trust of all stakeholders.
working together to advance the process of school improvement (Forsyth, Adams, & Hoy, 2011). Collective trust is the entirety of trust among all stakeholders (Forsyth, Adams, & Hoy, 2011). Yukl (1994; 1998; 2001; 2006) emphasizes “followers of a transformational leader feel trust, admiration, loyalty, and respect toward the leader, and they are motivated to do more than they originally expected to do” (p. 351); therefore, faculty trust in principals and transformational leadership behaviors of principals is illuminated through the faculty perceptions and their individual and combined relationships on collective teacher efficacy. Collective teacher efficacy is an influential component of the urban school context in the quest for school improvement.

**Urban School Context**

Urban schools differ greatly from neighboring affluent schools. There are many factors to overcome in urban schools which may not exist in neighboring affluent schools. Urban schools have limited external community and parental financial resources and social supports which are prevalent in neighboring affluent schools. There are wide arrays of characteristics, which can drastically curtail the peripheral underpinning of collective teacher efficacy for urban educational environments in contrast to their affluent counterparts; however, this study attempt to narrow the school background characteristics. According to the literature prevailing in inquiries related to urban school characteristics and collective teacher efficacy, a few were prevalent. The main school background characteristics significant in past literature are (1) is race and ethnicity variations (2) grade level snapshot in elementary school and middle school challenges which form additional barriers for urban schools as opposed to their affluent
counterparts (3) limited family income contributions and (4) previous school performance considerations.

First characteristic to examine is race and ethnicity of urban schools which varies greatly from affluent schools. Newmann, King, and Youngs (2000) express the urban demographics differences compared to neighboring affluent schools as “...many urban schools in the United States with large percentages of African-American, Asian, and Latino students and large percentages of students from low-income families” (p. 266). Percentage of white students in urban schools is typically substantially less in relation to neighboring affluent schools. Newmann, King and Youngs (2000) discuss how a teacher examined the achievement gap between whites and nonwhites and had to readjust tactics and expectations to ensure equality and equitability toward all. Another teacher in the same study became more sensitive to different cultures and ensured lessons were more culturally appropriate and relevant (Newmann, King, & Youngs, 2000). Recognizing and working to find relevancy among a sea of varied cultures, within urban schools, might positively influence the teacher efficacy component of instructional capacity.

Examining the grade level is second challenge in urban school context. The grade levels of elementary and junior high/middle schools are situated in a Midwestern urban school district and are derived from the secondary dataset. Wahlstrom & Louis (2008) found a slight significance in an empirical study on the variation between the different grade levels of elementary instructional capacity and middle school on instructional capacity when trust in principal leadership and shared leadership was present. School level characteristics can vary greatly due to the differences in
instruction required for different levels (Newmann, 1996; Wahlstrom & Louis, 2008), hence, leadership and teacher behaviors collectively ought to reflect the varied instructional responsibilities (Firestone & Pennell, 1993; Hargreaves, 2002; Lee & Loeb, 2000; Wahlstrom & Louis, 2008) The elementary school focuses on school readiness. Urban schools have a larger quantity of students on a wider spectrum. Basic needs must be met before a student is ready to learn. Formative years are extremely important for building a strong foundation for students’ entire educational process.

Junior high/middle schools are the second portion of grade level. Urban junior high/middle schools contend with an array of challenges creating a more volatile educational environment. Junior high/middle schools must focus on working with students, who have responsibilities beyond the average teenager. More urban students are latch key kids with additional challenges of care for younger siblings, lack of parental support and involvement, lack of necessary extra emotional support, lack of desired parental financial resources, and abundance of gang and street activities. Newmann, King and Youngs (2000) express how teacher “collaboration [can] lead to grade level standards and assessments in math and literacy, an extensive database on student achievement on school-based assessments (summarized by grade level and individual classroom, and also by race/ethnicity, language, and economic status) and a school based definition of algebraic thinking” (p. 276). Teacher collaboration might lessen the negative urban school effects on students such as a larger quantity of at-risk students than compared to affluent schools. When teachers can collectively increase their efficacy, they might lessen the effects of the abundance of debilitating obstacles.
The third characteristic in urban schools is limited family financial contributions toward student education. Urban schools are presented with financial and demographic challenges which can interfere with academic achievement (Petersen, Sayre, & Kelly, 2007). In Petersen, Sayre, and Kelly’s (2007) mixed method study, a range of school sizes were examined; however, the mean size would be considered urban with N=722 students. Free and reduced lunch rates, (based on parent socioeconomic status) influences student achievement, more specifically for this study, math achievement (Coleman, 1988; Dika & Singh, 2002; Sirin, 2005). The aforementioned influences the three indicators of instructional capacity: students, content, and teachers (Petersen, Sayre, & Kelly, 2007). The integration of the study is to express the importance of including family financial contributions and math achievement characteristics in relationship to instructional capacity. Even though there was limited financial resources (5 of 7 districts were below state per pupil expenditures), demographic diversity, and high free and reduced lunch percentages, instructional capacity lessened the effects of these challenges and raised student achievement. Petersen, Sayre, and Kelly (2007) viewed instructional capacity as a triangular approach, but this study is looking at collective teacher efficacy component to examine the relationship between free and reduced lunch and math achievement characteristics in accordance with instructional capacity in an urban setting (Goddard, Hoy, Woolfolk Hoy, 2000). Percentage of free/reduced lunch represents the limits of parental financial resources for this study. Urban school students lack of adequate nutrition compared to affluent school students due to limited parental income. In affluent schools, parents and communities initiate inessential economic opportunities, such as extra-curricular experiential and educational
activities, to be offered to individual and groups of students. In contrast to this, urban school funding is virtually nonexistent for these extracurricular types of learning experiences.

The fourth and final urban school context characteristic is previous academic achievement. Adams (2013) states “…urban systems across the country, faces immense pressure to improve student achievement” (p. 9). Math index score, reported on the A-F report card, is an indication of state achievement tests results. Math achievement, as well as the other subject matter, is a shared accountability and responsibility between leaders and teachers. Hoy, Sweetland, and Smith (2002) examined how collective teacher efficacy was a central component of student achievement in urban setting even more important than socioeconomic status or academic emphasis. Collective teacher efficacy even went one step further to motivate teachers and students to higher levels of achievement (Hoy, Sweetland, and Smith, 2002). Faculty trust in principals fosters a high level of teaching excellence which creates opportunities to overcome challenges and take necessary risks to promote achievement (Adams, 2013; Adams & Forsyth, 2009; Bryk & Schneider, 2002; Coleman, 1990; Fullan, 2005; Forsyth, Adams, & Hoy, 2011; Tschannen-Moran, 2014). Urban schools must abide by the same set of standards as affluent schools but with unequal external challenges. These guidelines and standards are set forth by the State of Oklahoma, and the base requirements must be achieved by all schools, no matter the extent of challenges a school endures. This urban school characteristic analyzed is the math performance index at the secondary school level. Urban schools require additional supports to elicit instructional influences for students to become equitable with affluent schools. These school characteristics are
examined individually to faculty trust in principals and transformational leadership behaviors to exhibit the extents of principals and teachers achieve to fulfill the positive impacts of instructional capacity in an urban school setting. Since the independent and criterion variables are aggregated at the school level utilizing one point to represent faculty respondents, the mean can absorb some of the varied school background characteristics and produce more accurate outcome of the data.

**Instructional Capacity**

**Capacity**

Efficacious teaching and high quality learning, which is situated for school improvement are the essential components of capacity (Adams, 2013; Bain, Walker, & Chan, 2011). Adams (2013) defines instructional capacity as “resources within schools that enhance teaching effectiveness and social processes that facilitate knowledge creation and professional learning” (p. 364). Capacity is a synergizing collective power of relationships between leaders and teachers to build professional skills and promote learning (Fullan, 2005; Newman, 2000). OCEP (2015) summarizes Adams (2013) “Instructional capacity is based on the availability and use of two interdependent properties: (1) resources in schools that improve teaching effectiveness and (2) social processes that facilitate professional learning” (p. 24). Since instructional capacity is a valuable component of the urban school context, the OCEP (2015) states “Embedded in an organization’s culture is its capacity to act effectively; in schools, this capacity resides in the incrementally developed and shared, experiential and explanatory knowledge about teaching and learning held by teachers and principals” (p. 3). As scholars and practitioners begin to understand the importance of the teacher influence
on instruction, more attention is given to this component of the school improvement process. In the past, capacity of instruction derived from various displays of school improvement process (Crowther, 2011) and policy concentration (Darling-Hammond, Hightower, Husbands, LaFors, Young, & Christopher, 2005; Fullan, 2010). OCEP (2015) express “Capacity is enhanced when teachers and principals continuously cultivate conditions and develop instructional approaches that promote learning” (p. 3). It is now recognized that capacity of instruction should be established at the local level with local control for maximizing student achievement impact (Adams, 2014; Goddard, Hoy, Woolfolk Hoy, 2004). Even though capacity is traditionally based on the individual teacher’s qualities, the OCEP and this study focuses on the accumulation collectively of all the teacher efficacies (OCEP, 2015) or possibly a collective power at the school level among teachers and leaders (Fullan, 2005).

With the quest of maximizing student achievement at the local levels, Jaquith (2012) defines instructional capacity as “the collection of resources-for-teaching needed to provide high quality instruction to groups of students in a specific context” (p. 2). High quality instruction guides teachers to be open and expectant of new challenges and changes to make instructional improvements (Urick & Sprinkle, 2013). Even though improving instructional capacity is viewed longitudinally to exhibit true improvement outcomes (OCEP, 2015), this study will use a cross-sectional slice of this secondary dataset. These behaviors of being open and expectant of challenges direct their attitude toward their own teaching, as well as the school organization (Bandura, 1993). Their attitudes are reflective of the teaching environment in which they foster. Teachers also reflect an expansive knowledge base of the content and pedagogy for instruction and the
ability to foster positive, supporting relationships with students (Jaquith, 2012). Teachers examine the potential in each of the engaged students and are tenacious in taking the necessary risks to motivate every student to learn (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014). These tenacious teachers provide an effective contribution to the entirety of the instructional capacity students’ success. With teachers’ impact on instruction being so prevalent, leaders must search for possible mentor teacher candidates to guide the more novice teachers toward capacity.

Early studies do exist toward capacity, centered on the environment in which instruction was a measure of quality teaching (Adams, 2014; Cohen & Ball, 1999; Corcoran & Goertz, 1995; Newman, King, & Rigdon, 1997; Newman & Wahlage, 1995). The essential component for this high quality teaching, superior learning and school improvement is instructional capacity (Bain, Walker, & Chan, 2011). Elmore (2003) furthers this capacity exploration through offering inspirational instructional program examples concerning instructional capacity definitions. However, Elmore (2003) embraces instructional resources and efficacious leadership as additional contributors to a high capacity organization, in addition to the valuable components of instructional capacity (Jaquith, 2012). Even though the study later discusses the role of efficacious leadership in relation to instructional capacity improvement, first, explanations of the three components involved in instructional capacity are provided.

Instructional capacity can be examined through three main avenues. First is through curriculum, which consists of the necessary materials and resources for teachers and students to use. Student perspective is the second instructional capacity avenue, which is a fostered student-teacher interrelationship in a trusted, open atmosphere
conducive to learning. Third, is teacher influence/perspective, which is the knowledge of content and pedagogy, and interrelationships with students and other teachers, and leadership supports (Jaquith, 2012). The teacher influence/perspective is later discussed under the sections of efficacy, teacher efficacy, and collective teacher efficacy, which is the dependent variable for this study. Collective teacher efficacy is the terminology used later in this paper to describe the instructional capacity component for this inquiry. However, in most research, the term, instructional capacity, is used to describe the teacher influence on instruction. The teacher influence of instructional capacity is the teachers both individually and collectively, maximizing the instructional process for student engagement and achievement. Adams (2013) cites Newmann, King, and Youngs (2000) when referring to “instructional capacity as embodied in competent teachers”, individually and collectively (p. 364). Since instructional capacity is viewed as efficacy, teacher efficacy, and collective teacher efficacy for this study, each component is described and defined to build to collective teacher efficacy. Lee and Smith (1996) repeatedly revealed, at the school level, how collective teacher efficacy and responsibility raised student achievement to provide higher equitability improving instructional capacity.

Teacher influence is even more pivotal in urban schools, which has many antecedents that can hinder instructional capacity; hence, collective teacher efficacy is used as the dependent variable for this study. Teacher influence might negate some of these previously stated antecedents of urban schools and still positively impact instructional capacity. These social practices integrating and influencing the promotion of knowledge construction and teacher competence (Adams, 2014; Newmann, King, &
Youngs; 2000) advances instructional capacity rather than previously considered, as on
the curriculum and fiscal related resources contributing to the instructional capacity
formation (King & Newman, 2001; Spillane & Louis, 2002). The valuation of the
teacher influence is much more significant in the impact of instructional capacity.
Influence on others begins in one’s on belief of efficacy.

**Efficacy**

Efficacy is the belief in one’s own capabilities to produce effects, influence, and
capabilities to influence performance throughout his years of research. An array of
research has continually supported this power of positive efficacy in a variety ranging
beneficial habit formations from motivation personally to education and sports
achievements to diverse subjects such as abandoning and altering health rendering vices
and behaviors (Bandura, 1997; Goddard, Hoy, & Woolfolk Hoy, 2004; 2006). There are
several these efficacy oriented concepts which contribute to the collective teacher
efficacy in a school (Hoy, Tarter, & Woolfolk Hoy, 2006). Efficacy is expectations
which are fulfilled through one’s attributed abilities (Balci, 2005). Efficacy is based on
perceptions of knowledge and skills of curriculum. Confidence in one’s own abilities
and skills can boost efficacy. Bolman and Deal (2008) discuss developing autonomous,
liberating circumstances, in which followers can exhibit their influence and energy to
impact the organization in a positive, productive manner. Efficacy sprouts internally
but is nurtured externally by others’ behaviors. Bandura, (1997); Kirby & DiPaola
(2009) state “human behavior can be explained where behavior, personal and
environmental factors interact; Bandura (1997) assumes that humans make choices purposefully, and that we make those choices based on what is believed to be the likely outcome of those interactions” (p. 79). Burns (1978) emphasizes efficacy similarities to the followers as well as enticing them through their “true” necessities of “shared motives and values and goals” in all aspects of life (p. 36). Hoy, Tarter, and Woolfolk Hoy (2006) discuss “Efficacy beliefs are central mechanisms in human agency, the intentional pursuit of a course of action. Individuals and groups are unlikely to initiate action without a positive sense of efficacy” (p. 428). Self-efficacy is a critical component of Bandura’s (1986, 1994, 1997) social cognitive theory, in which individual believe in his or her own capacity to produce a specific level of attainment through organization and execution of certain actions designed toward goal achievement (Bandura, 1997; Hoy, Tarter, & Woolfolk Hoy, 2006). Individual efficacy can vary greatly from one person to another based on his or her perceived beliefs in self; however, collectively, individuals are influenced by others to emphasize his or her efficacy beliefs on capabilities in a more uniform approach.

**Teacher Efficacy**

Of the different types of efficacy, teacher efficacy is a valuable component to positively impacting student achievement (Tschannen-Moran, Woolfolk Hoy, Hoy, 1998; Hoy, Tarter, & Woolfolk Hoy, 2006). Teacher efficacy is directly related to their instructional approach and knowledge of curriculum and the relationships forged with students and other teachers. Teacher efficacy beliefs are viewed individually, as well as, collectively (Hoy, Tarter, Woolfolk Hoy, 2000; 2006). Forsyth, Adams, and Hoy, (2011) are summarizing Bandura’s (1997) view on “Teacher self-efficacy is the
teacher’s belief in his or her ability to organize and execute actions to accomplish a specific teaching task” (p. 89). Teacher beliefs transcend when they possess a high level of comfort, support, and purpose geared at improved student learning (Dixon, 1999; Marks & Printy, 2002) and promote conceptual change (Guskey, 1986; 1989). Teachers’ efficacy is a response to the responsibility for student success (Dixon, 1999; Marks & Printy, 2002). Fink, a school practitioner, from Fink and Resnick (2001) explains “I believe that no effective learning can go on without very strong personal relationships, but relationships can’t substitute for deep knowledge. The challenge is to build those relationships around studying teaching and improving instruction” (p. 601). Teachers need to possess both: a strong knowledge of the content and pedagogy and the ability to interact well with students. When strong interpersonal relationships are formed as well as a strong knowledge base, higher levels of teacher efficacy develop. Efficacious teachers, according to Forsyth, Adams, and Hoy (2011), “overcome such negative external influences as poor living environments,” because they believe they can teach all students, even ones with additional learning difficulties (p. 89).

Teacher efficacy in education and experience are contributing factors to determining the perceived level of collective teacher efficacy (Bandura, 1993; Goddard, Hoy, & Woolfolk Hoy, 2004; Hord, Roussin, & Sommers, 2009; Pajares, 1997). Efficacy beliefs are based on four concepts: teaching/education mastery, perceived, behavioral experiences, valued influence, and level of receptiveness to valued influences (Bandura, 1986; Adams & Forsyth, 2006). This social experiential factor of teaching/education mastery impacts theoretically and more extensively through empirical studies (Bandura, 1986; Goddard, Hoy, Woolfolk Hoy, 2004; Adams and
Forsyth, 2006). An extension of Bandura’s (1986) perception is based on using past experiences to assess the present context as a valuable component of teacher efficacy (Adams & Forsyth, 2006). Present context can contain an array of complexities unique to urban, impoverished schools. Environmental context is beneficial to concluding the teacher characteristics toward their level of collective teacher efficacy (Adams & Forsyth, 2006).

**Collective Teacher Efficacy**

Original examinations on collective teacher efficacy were not linked to social organizational practices; however, it was connected to student achievement with the earliest research establishment of this concept through Bandura (1993) (Adams & Forsyth, 2006; Bandura, 1993; Goddard, 2002; Tschanen-Moran & Woolfolk Hoy, 1998). OCEP (2015) expresses “Collective teacher efficacy is the shared perceptions of faculty that its collective efforts will have positive effects on students” (p. 24). Collectively, teachers develop a resilient, persistent attitude altering the climate of the educational environment in a positive manner (Bandura, 1997; Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Hoy, 2002; Purkey & Smith, 1983). An abundance of research exists correlating how collective teacher efficacy affects student achievement in urban schools with low socioeconomic status (Bandura, 1993; Goddard, Hoy, & Woolfolk Hoy, 2000; 2006; Goddard, LoGerfo, & Hoy, 2004; Hoy, Sweetland, & Smith, 2002; Kirby & DiPaola, 2009; McGuigan & Hoy 2006; OCEP, 2015). Collective teacher efficacy is the entirety of the teachers perceiving that they, individually and as a group, can positively influence student achievement by organizing and executing necessary actions to accomplish school goals (Forsyth, Adams, & Hoy,
2011; Goddard, Hoy, & Woolfolk Hoy, 2000; 2006); thus creating a cyclical pattern of enhanced self-efficacy and collective teacher efficacy to promote incremental improvements within the social organization. According to Hoy and Miskel (2008), “Collective efficacy is the shared perceptions of teachers in a school that the efforts of the faculty as a whole will have positive effects on students” (p. 188). Bandura (1986, 1997) express that group attributes are the sum of individual attributes contributing to improved teacher efficacy. Collective teacher efficacy is paramount to student achievement. Teachers are more diligent in taking risks when they believe they can be successful in a supportive environment (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014). When teachers are confident enough in their own skills and abilities, they collectively foster teacher efficacy to thrive in their social organization, while negating the negative effects of socioeconomic status in urban schools (Hoy & Miskel, 2008; Bandura, 1993). Adams and Forsyth (2006) state “Social persuasion at the collective level depends on establishing norms of openness, collaboration, and cooperation with the social network” (p. 631). While Chhuon, Gilkey, Gonzales, & Daly (2008); Longwell-McKean (2012) posits “Quality relationships have been found to be a contributing factor in job satisfaction and school effectiveness” (p. 4). Perceptions of transformational leadership can socially compel others to desire and create quality relationships in their own surroundings. Brinson and Steiner (2007) validate the importance of the relationships between leaders and teachers, because “Collective efficacy, then, is a key to unlocking the existing talents of individual teachers and building their commitment to the school’s success” (p. 3). Collaboration allows teaching efficacy to foster an influential culture collectively. Bolman and Deal
(2008) state “Culture forms the superglue that bonds an organization, unites people, and helps an enterprise accomplish desired ends” (p.253). Brown, Collins, and Duguid (2005) state, “Activity, concept, and culture are interdependent…Learning is a process of enculturation” (p.33). An enculturation influenced by individual efficacy and collective efficacy. Adams and Forsyth (2006) express “perceived collective efficacy reflects a teaching faculty’s belief in its collective ability to carry out teaching tasks that promote student achievement” (p. 626). Since we are utilizing Adams and Forsyth’s data for this inquiry, the latter evolved meaning provides the basis for this study. Hence, collective teacher efficacy is viewed as the investigated component of instructional capacity for this inquiry. The social aspects of teachers, as a whole, influence the level of achievement in a school system; therefore, their perceptions of principal leadership behaviors are important to their own social realms collectively. Having trust in principal leadership behaviors offers the opportunities for teachers to perceive that social reinforcement of collective teacher efficacy.

**Interrelationships as a Facet of Collective Efficacy**

Since research indicates efficacy and trust as mediators of relationship building processes with transformational leaders to promote organizational citizenship behaviors (Jung & Avolio, 2000; Conchie, Taylor, & Donald, 2012; Pillai, Schriesheim & Williams, 1999) then this relationship adds merit to my investigation. Even though the organizational citizenship behaviors are influenced indirectly by transformational leadership behaviors and mediated by faculty trust in principals (Podsakoff, MacKenzie, Moorman, & Fetter, 1990), there is still a significant relationship socially to effective
teaching social aspects. These effective teaching social aspects are the organizational citizenship behaviors components of an organization.

The organizational citizenship behaviors are summed up in five social components of an organization. They are: altruism, conscientiousness, courtesy, civic virtue, and sportsmanship (Moorman, 1991; Organ, 1988; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). These five components of organizational citizenship behaviors are the character foundation for building collective efficacy. The collective efficacy contributes to the formation of strong relationships with others which can be the key to transforming their learning and understanding of life. The strong relationships between teachers and principals create a conducive environment to learning and understanding life. Kolesnik (1978) expresses how human psychology leads principals to be “very much concerned with the student’s needs for affection, self-confidence, self-respect, a feeling of belonging, etc., if for no other reason than that the satisfaction of these needs is a kind of prerequisite for optimum scholastic achievement” (p. 171). The students’ social needs are fostered through interrelationships. The interrelationships the students have with effective teachers. The social construct of collective teacher efficacy improves the instructional process by building the interrelationships between teachers and students. Teachers first have to form these interrelationships with principals. Teachers, then, perceive trust from the principal leadership behaviors toward the interrelationships to develop their own improved level of collective teacher efficacy. Collective teacher efficacy promotes high quality teaching. Monk (1992) Grubb, (2009) Knight (2012) inform that research exists positing the positive influence between quality teaching and academic achievement.
situated in observing the complexities of the classroom interactions between teachers and students (Monk, 1992; Grubb, 2009; Knight, 2012). Individual interrelationships offer the necessary support “for many students and teachers, individualized attention provided instructional support and the opportunity to build strong, trusting student/teacher relationships” (Perez and Johnson, 2009; p. 160). Thus, building relationships with students individually and within the group setting fosters higher levels of achievement. In an effort to effectuate instruction collectively, Sullivan and Shulman (2005) discuss a leadership vision, as “an educational vision that is approached from several contexts (beliefs, experience, and knowledge) and is intimately connected to his plan of action” (p. 132). This collective vision was expected to promote collective efficacy and faculty trust in leadership. According to Sullivan and Shulman (2005), in most circumstances, the leadership vision was accepted and implemented in part due to his “…constant presence, both in the schools and at professional develop meetings. His hands-on involvement extended to teaching” (p. 132). Transformational leaders are involved at every level expressing the mission and modeling expectations for the teachers. Sullivan and Shulman (2005) add “Beliefs and knowledge about a mission need to be intimately connected with action that changes the status quo” (p. 132). These specific facets operationalize transformational leadership behaviors for this study and align with the secondary dataset survey questions for this section.

**Faculty Perceptions of Principals (Leadership)**

Teachers’ perceptions of effective leadership justify the operationalized facets aligned with the variables of interest for this study. High quality teaching is related to
teachers’ perceptions of principal leadership. Bass and Avolio (1993) iterate “The culture affects leadership as much as leadership affects culture” (p. 113). Research exists exhibiting a significant relationship between transformational leadership and perceived faculty trust (Dirks & Ferrin, 2002; Forsyth, Adams, & Hoy, 2011). Synar and Maiden (2012) tackle faculty perceptions of principal leadership through the economic impact of teacher turnover. There is a financial underpinning to most issues school districts face. Synar and Maiden (2012) examine urban teacher behavioral responses to situational experiences as they discuss the National Education Association (2003) reports on how teachers perceive their positions as unsupported, with little or no guidance of teaching/school expectations, and are in an isolated environment. It is further noted that these scenarios overwhelm the teachers and lead to high teacher turnover. These perceptions first lead to lack of trust in the leadership and a disjointed view of the school community which can even eventually lead to teacher turnover. As an example of faculty perceptions in principal leadership, principals, who are fostering trust, can even possibly participate in the prevention teacher turnover. Adams and Forsyth (2013) express “In general, trust contributes to a positive performance culture in schools, with each distinct form of trust shaping the teaching and learning context uniquely” (p. 2). Teachers’ perceptions of their leadership can perpetuate their ability to excel or abruptly halt their existence in the teaching field. Synar and Maiden (2012) state “Progressive educational leaders, cognizant of the value of human resource, must weigh the price of current recruitment and retention and compare these expenditures to the cost of losing quality teachers” (p. 142). Bass and Avolio (1993) emphasize “Cultural norms arise and change because of what leaders focus their attention on, how
they react to crises, the behaviors they role model, and whom they attract to their organizations” (p. 113). Teachers perceive these transformational leadership behaviors and develop bonds of trust with their principals. With these bonds of trust between leaders and teachers, collective teacher efficacy is increased. Thus, researchers insist that transformational leaders and faculty trust in principals provide a direct outcome on teachers’ collective efficacy (Tschannen-Moran, 2014). Bass and Avolio (1993) refers to transformational leadership effectiveness on teachers ‘perceptions through leaders “foster[ing] a culture of creative change and growth rather than one which maintains the status quo” (p. 113). Leaders go beyond fostering the creative change culture to provide strong interrelationships with teachers (Tschannen-Moran, 2014). These transformational leadership behaviors generate a conducive, learning environment (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Murphy, Elliott, Goldring, & Porter, 2006). Bryk and Schneider (2002) and extend the principal leadership role to appreciate a trust fostering atmosphere intended toward engaging relationships beyond the school environment.

The principal fosters a trusting environment with the teachers; thus developing the optimal environment to enhance instructional practices. OCEP (2015) emphasizes “As teachers and leaders begin to experience and understand their successes, they build a culture of success and optimism that is matched with the needs of the school and the specific students they serve” (p. 3). This trusting relationship indicates a linkage between leaders and their indirect outcome of student improvement.

This study sets the stage for examining faculty perceptions of leadership for fostering faculty trust in leadership.
Trust

Trust among people forges bonds which connect them for the duration. Tschannen-Moran (2014) and OCEP (2015) indicates “To build trust, teachers and principals have to act, and be seen to act, in trustworthy ways, including exhibiting benevolence, candor, consistency, competence and honesty…” (p. 4). Tschannen-Moran (2014) then describes trust as a “manifest in situations where we must rely on the competence of others and their willingness to look after that which is precious to us” (p. 17). Tschannen-Moran (2014) bases her description on the quote from Baier (1994) “Trust…is reliance on others’ competence and willingness to look after, rather than horem, things one cares about which are entrusted to their care” (p. 17). Trust is the interactions developed through genuine actions that create confidence and understanding among participants on the emotional and logical aspects of the individual overcoming perceived fears (Forsyth, Adams, and Hoy, 2011). OCEP (2015) later expresses Tschannen-Moran (2014) trust facets in relation to how “Faculty trust in principal measures the quality of relationships between faculty and the principal as determined by the degree to which faculty perceive the principal as supportive open, dependable, competent, and honest” (p. 16). Tschannen-Moran (2014) indicates “Trustworthy leadership is at the heart of productive schools” (p. 14). Productive schools happen through forging interrelationships between the leaders and the teachers. Forging these relational bonds of trust with others is a choice (Tschannen-Moran, 2014). This choice of trust might create a conducive atmosphere for risk-taking behaviors among teachers (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014). Trust takes time, energy and persistence to construct (Tschannen-Moran, 2014);
however, trust can be destroyed in an instant; therefore, leaders must consider their actions and behaviors thoroughly whilst encountering the faculty members.

According to Forsyth, Adams, and Hoy (2011), “The authenticity-trust relationship is not unidirectional; however, although leader authenticity produces faculty trust, it is also likely the case that faculty trust enables leaders to be open, transparent, and authentic” (p. 6). Hoy et al. (2006) emphasize how trust and cooperation among teachers work hand in hand to initiate effective student learning environments. Trust is the interpersonal relationship formed with the understanding of the component of risk that can occur (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014). Leaders have a never ending necessary challenge to be trustworthy and to continually self-reflect and adjust accordingly (Forsyth, Adams, & Hoy, 2011); hence the specific component of trust examined in this inquiry is faculty trust in principal leadership.

**Faculty Trust in Principal (Leadership)**

Faculty trust in principal leadership situates teachers into a collaborative community working together for the good of the student. Forsyth, Adams, and Hoy (2011) stress “Trust serves as a central catalyst that energizes optimistic beliefs and hopeful behaviors by teachers and other members of the school community” (p. 167). In order to establish this optimistic school community, teachers and leaders must invest the necessary time and energy in building interrelationship connectedness. Interrelationship connectedness cultivates the necessary faculty trust in principal leadership which augments transformational leadership behaviors. Cultivating faculty trust among teachers and leaders through the lens of transformational leadership
stimulates educational harmony in school climate (Tschannen-Moran, 2014). Through the lens of transformational leadership behaviors are exhibited with faculty trust in principal leadership augmenting transformational leadership behaviors. Through this complex connection of faculty trust in principal leadership and transformational leadership behaviors, school climate is improved. When the school climate improves, teachers and leaders individually and collectively want the best interests of others; therefore; Hoy et al. (2006) express “Trust is one’s vulnerability to another in terms of the belief that the other will act in one’s best interests” (p. 429).

When one acts in the best interests of others, respect and personal regard for other person or group is demonstrated. Bryk and Schneider (2003) also put forth that principals should “both respect and [show] personal regard when they acknowledge the vulnerabilities of others, actively listen to their concerns, and eschew arbitrary actions” (p. 43); therefore, openness and regard for others is highly essential in this process. Respect, openness and high regard foster trust among teachers, which tends to develop positive behaviors within teachers (Urick & Bowers, 2014). Teachers ‘behaviors tend to formulate trust through observing the leadership behaviors in which followers are exposed to frequently. A culture of trust and support can induce a growth in teacher purpose and leadership (Moller, Childs-Bowen & Scrivner, 2001) advancing collective teacher efficacy. When occupational relevance and purpose are fulfilled by teachers, then the teachers replicate the actions toward others.

Fostering a culture of trust among individuals entails many attributes. Attributes which include positive individual and group behaviors, more specifically efficacy. Behaviors of individuals or groups of individuals can predicate the level of trust ensued
by leaders and teachers (Longwell-McKean, 2012). We, as humans and social by nature, want to form positive relationships with others. We naturally want to trust and be trusted, but when that trust is damaged, we become more hesitant. With time and change, we begin to be able to form those trusting bonds again with others. Leaders must be sensitive to damaged trust and acclimate to the individual and group needs to foster strong bonds of trust among the members of the school community (Tschannen-Moran, 2014). When we meet someone for the first time, we form an initial gut feeling about that person. This intuitive feeling is how we trust someone (Tschannen-Moran, 2014), in which we perceive their nature. Adams and Forsyth (2009) provide a description of trust and a defining point of relational trust from Bryk and Schneider (2002) as “respect, competence, personal regard for others, and integrity” (p. 265). These trust inducing qualities are prominent characteristics of transformational leaders; therefore, faculty trust in principal leadership bridges with transformational leadership qualities. According to Forsyth, Adams, and Hoy (2011), “Trust in the principal maximizes teacher effort and performance and helps to focus collective energy on what is important” (p.157). Teachers aspire to a trusting work environment; therefore, they experience an extraordinary degree of security in addition to obtaining consideration and care from the social organization (Bowman & Deal, 2008). Level of comfort due to care and consideration from the work environment sets the stage for teachers to takes professionally, which positively impacts student achievement. Tschannen-Moran (2014) expresses ‘Without trust, teachers and students are both unlikely to take the risks that genuine learning entails” (p. 13). Leaders foster this impacting level of trust; therefore, leaders can make or break schools. Due to the high value of leadership
relating to teacher trust, leaders must guide the guide by providing a clear and concise vision and mission of the future forecast for their community school. Forsyth, Adams, and Hoy (2011) iterate “Visions for a better future prompt interactions and conversations on expectations, responsibilities, dreams and innovation. These interactions are the basis of trust formation in schools; they bring individuals together to co-create conditions that will lead to better outcomes” (p. 140). Also, leaders and faculty can conquer the school challenges together through enlisting trust in one another (Tschannen-Moran, 2014).

Faculty trust in principal leadership is an increasingly prevalent exploration fostering several basic trust developing facets to the various interworking attributes of school communities (Forsyth, Adams & Hoy, 2011; Tschannen-Moran, 2014; Tschannen-Moran & Hoy, 2000; Van Miele, Forsyth, & Van Houtte, 2014). The researchers have narrowed it to the five facets of trust which are: benevolence, honesty, openness, reliability, and competence (Tschannen-Moran, 2014; OCEP, 2015). Tschannen-Moran (2014) articulates that the five facets of trust are established with teachers and their counterparts by “Principals set[ting] the tone for teachers to trust one another” (p. 151). When examining the five facets of trust in relation to transformational leadership merits, it is apparent that the characteristics are exceedingly similar; thus the effects of faculty trust in principal leadership on collective teacher efficacy are also augmented by transformational leadership behaviors on collective teacher efficacy. When examining the level of trust, it is noted that the variance of trust in relationships between leaders and teachers is dependent on the specific levels of reliance and consequences of expectations for the followers (Shaw, 1997); thus the
The influence of transformational leaders can alter the behaviors and actions of followers based on the situational experiences and level of compelled influences. When expectations vary from leaders and teachers, trust can be diminished; however, a mutual understanding of values for the students and the school’s social organization needs to be established for a symbiotic relationship to take hold for a trusting caring environment to prosper.

**Principals Building Trust with Faculty**

The teacher reaction to principal trust sets the stage for positive and transformative program development. Tschannen-Moran and Gareis (2015); Tschannen-Moran (2014) “found that the level of trust teachers held for the principal set a tone for the building” (p. 258). Programs designed to enhance the knowledge base of principals in the area of leadership; within these programs, positive, trusting schools should be a priority (Capper et al., 2006; Theoharis, 2007). When leaders are fostering trust, teachers perceive it through concurring with statements related to trust in principal leadership like the following. According to Podsakoff, Mackenzie, Moorman, and Fetter (1990) quote from their scale statements such as “I have complete faith in the integrity of my manager/supervisor” –were used to reflect the followers’ faith in the intentions of their leaders” (p. 115). Statements like above express the importance of faculty perceptions of leadership in relation to faculty trust in leadership. Faculty trust in leadership derives from their perceptions of interpersonal interactions.

In conclusion, here is what is meant by the use of trust in this secondary study. Trust is exhibited in quality trusting relationships between leaders and teachers. Quality relationships between leaders and faculty in which exhibit trust are based on open,
supportive, dependable, transparent, competent and honest behaviors (Tschannen-Moran, 2014; OCEP, 2015). Faculty perceptions of leadership are the basis of faculty trust in principals (Bryk & Schneider, 2002; Bryk, Sebring, Kerbow, Rollow & Easton, 1998; Leithwood & Sun, 2009; Nader, 1997; Pitner, 1988; Roeser, Arbreton & Anderman, 1993; Sebring, Allensworth, Bryk, Easton, & Luppescu, 2006; Synar & Maiden, 2012). This trust is fostered due to teachers having faith in the integrity of the principal (Adam & Forsyth, 2009; Bryk & Schneider, 2002; George, 2003; Podsakoff, Mackenzie, Moorman, & Fetter, 1990). Through this increase of faith and integrity, trust is reciprocated by the teachers to the principal (Ayers, Quinn, & Stovall, 2009). With improved trustworthiness in leadership, teachers rely on the principal (Aas & Brandmo, 2016; Law et al., 2007; Tschannen-Moran, 2014). They rely on the leaders by virtue of teachers believing that the principal is competent in fulfilling his/her principal duties (Adams, 2014; Baier, 1994; Brimley, Verstegen, & Garfield, 2011; Bryk & Schneider, 2002; Fullan, 2005; Hipp, 1996; Marzano, 2005; Newmann, King, & Youngs, 2000; Tschannen-Moran, 2014). Trust is produced between leaders and teachers through openness and transparency (Avolio & Gardner, 2005; Tschannen-Moran, 2014; Urick & Bowers, 2014). Principals exhibit their openness and transparency by being genuinely supportive of teachers (Fenn & Mixon, 2011; Fullan, 2008; 2014; Urick & Bowers, 2014).

Principal

Effective faculty trust in principals transpires in an open and transparent environment in which good relationships are the basis of good schools (Urick & Bowers, 2014). Principal leadership behaviors set the stage for the fostered trust to
occur. Tschannen-Moran (2014) emphasizes “Trust matters most in situations of interdependence, in which the interests of one party cannot be achieved without reliance on another (p. 20). Interdependence between teachers and leaders establishes trust through “benevolence, honesty, openness, reliability, and competence” (Tschannen-Moran, 2014, p. 21). Transformational leaders hold benevolence, honesty, openness, reliability, and competence in high regard as transformational leadership behaviors. Tschannen-Moran (2003) also associated these same behaviors with transformational leadership behaviors; thus, setting the stage for the interaction of trust and transformational leadership to later occur to examine the joint relationship on collective teacher efficacy. Principal leadership behaviors, which can foster trust among faculty, lead teachers to exceed expectations (Yukl, 1989), motivate and guide teachers to exceed basic routines (Katz & Kahn, 1978), set goals to mold and uplift teachers (Bennis & Nanus, 1985) alter existing attitudes, values and beliefs for higher teaching performance (Podsakoff, MacKenzie, Moorman, & Fetter, 1990), and raise teachers to extraordinary levels (Boal & Bryson, 1988).

Leadership Behaviors

Hallinger and Heck (1996) reviewed forty empirical studies deriving from 1980 to 1995 on principal leadership behaviors contributing to the improvement of student achievement for this investigation. Many of these studies were cross-sectional, and Hallinger and Heck (1996) believed that were less informative than that of a longitudinal study on principal effectiveness. They believed there were too many variables to produce an accurate account in such a short time span. They looked specifically at research on three criteria: (1) “the effects of the principal’s leadership
Hallinger and Heck (1996) express leadership behaviors and their relationship to teachers and students “is complex and not easily subject to empirical verification” (p. 6). In the 1980’s researchers revised their conceptualization of the role of principal; this formed a foundation “for more systematic empirical investigation” (Hallinger & Heck, 1996, p.9; Bossert, Dwyer, Rowan, & Lee, 1982; Hallinger & Murphy, 1985; Leithwood & Montgomery, 1982; Sirois & Villanova, 1982). The focus of this research was designed toward influencing the school culture to enhance collective teacher efficacy (Hallinger & Heck, 1996). Hallinger and Heck (1996) emphasize that they examined many mixed methods studies; however, they state “quantitative methods are essential for assessing the extent to which administrative effects are present in schools” (p. 14). Qualitative methodology is more adept to the complexities of principal interactions (Hallinger & Heck, 1996; Dwyer, 1986). After categorizing the studies into the type of methods used to measure them, Hallinger and Heck (1996) examined each study using three models: (1) direct-effects model, (2) mediated-effects model, and (3) antecedent-effects model (Pitner (1988). Their goal was to analyze the impact of the principal’s actions on the desired outcomes with either of the first two models and then in conjunction with the third model supporting either model A or B. Hallinger and Heck (1996) also examined Pitner’s (1988) reciprocal-effects model which is the basis for faculty perceptions of principal leadership which fosters trust between leaders and followers. Hallinger and Heck (1996) found that the scope of the forty studies varied extensively from just exhibiting an there was an established relationship between
principals and teachers and students to more complex in-depth investigations which were theoretically driven to prove levels of significance in the relationships; thus altering and strengthening the research foundation principal effectiveness. They also concluded that there is some significance in principal effectiveness and school components such as collective teacher efficacy, which can indirectly influence student achievement (Hallinger & Heck, 1996).

According to Leithwood (2004) and Marzano (2005), there are twenty-one specific principal responsibilities associated with evidence steeped in leadership behaviors influencing student achievement; however, the focus of this investigation is designed to examine the indicator of faculty trust in principals as augmenting the influence of transformational leadership’s behaviors on collective teacher efficacy. Many other theorists and researchers have examined individual attributes of these twenty-one competencies in relation to leadership behaviors and practices (Marzano, 2005). Marzano (2005) does include trust as one of the components of leading for a higher moral purpose, a holistic concept which originates with Burns (1978). Waters, Marzano, and McNulty (2003) further describe leading with a moral purpose as Manaakitanga, which originates from New Zealand as an act of welcoming and sharing to enhance the experience. Manaakitanga is bestowing respect and kindness toward others as an essential behavior; hence fostering a trusting environment. Another New Zealand term, utilized by Waters, Marzano, and McNulty (2003) in their thirty year plus research period, Awhinatanga is described empathetic understanding and for others. Leaders, who possess high levels of empathy and compassion for others can transform a school system into a fostered trusting atmosphere, in which collective teacher efficacy
can be enhanced. The results of this research project hinged off of practitioners’ practices and informed the development of three meta-analyses scripting out the specifics related to effective principal leadership in which trust is implicitly and explicitly represented. One of the existing outcomes of this research has steered to the McRel’s principal evaluation system to become one of the three possibilities implemented in the Oklahoma School Systems.

Another related empirical study from Nader (1997) in an Ohio elementary school was able to offer a positive relationship connecting transformational school leadership and faculty perceptions as evident in student behaviors. Leaders were most efficacious in vision building of specific transformational school leadership expectations with one exception of fostering group goals. All of the expectations minus the one exception provided a high correlation to student engagement and achievement outcomes.

Other studies are geared toward exploring the relationship of transformational school leadership on faculty perspectives which included two analyses of trust indicating mixed impacts and no effect (Leithwood & Sun, 2009). Faculty perceptions of leadership include many varied contributors both individually and collectively through thirty-one studies and fifty-six analyses. Leithwood and Sun (2009) reveal that there is still inadequate evidence linking transformational leadership’s bearing on faculty perceptions and behaviors.

In essence, the purpose of transformational leadership is to correlate directly with the component of faculty trust in principals to advance teacher/leadership interrelationships; thus impacting collective teacher efficacy. Promotion of collective
teacher efficacy elicits trust among teachers and leaders so that obstacles are overcome, which prohibit the progression of academic improvements in the school. Through the alteration of techniques and views about educational leadership, barriers can be broken and problems addressed even if a solution is not currently present. Without this change, the instructional learning capacity becomes passive and milquetoast to bettering both the students and teachers.

**Transformational Leadership**

Transformational leadership behaviors are the overarching behaviors of effective leadership, in which they genuinely care unconditionally about the people, the organization, and the community in which they serve. Transformational leadership encompasses behaviors to influence followers through modeling and leading by example, motivational, inspirational, visionary, supportive, and openly transparent in communicative and collaborative skills for fulfillment of a higher purpose either within others for overall school improvement (Avolio & Bass, 1988; Bass, 1985; Boal & Bryson, 1988; Urick & Bowers, 2014). Boal and Bryson (1988; Hunt, Boal, & Dodge, 1999) base their leadership studies on charismatic leadership qualities such as visionary, which is a portion of the undergirding of the faculty survey questions and the OCEP beliefs. Hunt, Boal, and Dodge (1999) express “The visionary charismatic does this by linking followers’ needs to important values, purposes, or meanings through articulation of vision and goals” (p. 424). Charismatic qualities along with the four I’s of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Aas & Brandmo, 2016; Leithwood et al. 1999; OCEP, 2015) are the basis of the faculty survey questions over transformational
leadership. OCEP (2015) states “Transformational leadership behavior is marked by the following seven key behaviors: 1) articulating a vision, 2) modeling, 3) fostering group cohesion, 4) setting high performance expectations, 5) providing individualized support, 6) challenging assumptions and the status quo, and 7) recognizing outstanding work” (p. 47).

Bass (1998) expresses “Leaders are authentically transformational when they increase awareness of what is right, good, important and beautiful” (p. 171). OCEP (2015) expresses “The transformational leader articulates a vision, models cooperation, fosters group cohesion, sets high performance expectations, provides individualized support, challenges assumptions and the status quo, and recognizes outstanding work” (p. 16). Fink and Resnick (2001) provide emphasize how the district leaders model the expected behavior for the principals through appropriately collaborating with principal leadership. Principals, in turn, model appropriate behaviors through collaborating with teachers collectively to resolve school issues. It is cyclical modeling behaviors which could be modeled for students by teachers. Bass and Steidlmeier (1999) state “Transformational leaders set examples to be emulated by their followers” (p. 182). Corrigan, Grove, and Vincent (2011) discuss “we further develop ourselves as moral exemplars in a school as we model for all stakeholders what we expect from them. Building these positive relationships with students is paramount to success” (p. 209). This perception of “moral exemplars” provides the foundation modeling expected behaviors for teachers to follow. The modeled behaviors are creating organizational opportunities for shared responsibility between teachers and principals. Bass and Steidlmeier (1999) express “authentic leaders, as moral agents, expand the domain of
effective freedom, the horizon of conscience and the scope for altruistic intention. Their actions aim toward noble ends, legitimate means, and fair consequences” (p. 211). These leadership actions lead to increased shared responsibility between leaders and teachers. Emphasizing shared responsibility toward enhancing student achievement is precisely the connection toward school effectiveness many researchers envision (Adams & Forsyth, 2009; Epstein 2001; Hatch 2006); however, as Adams and Forsyth (2009) state, “transforming structures and cultures to make shared responsibility a reality requires risks that many are not willing to take” (p. 264). Firestone and Louis (1999), Leithwood and Jantzi (1999) and Marks and Printy (2003) also express that principal leadership has a responsibility to transformationally change a school culture or uphold it.

Thus, the importance of transformational leadership in education is for principals to foster positive communities in which there is open communication and collaboration toward a unified mission and its development (Bogler, 2001; Hallinger, 2003; Leithwood, Leonard & Sharratt, 1998; Nguin, Sleegers, & Denessen, 2006; Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011; Urick & Bowers, 2014a). Open communication and collaboration in a supportive environment empowers teachers to become resourceful and creative in facing and adjusting educational obstacles (Bass, 1985; Burns, 1978; Moolenaar, Daly, & Sleegers, 2010; Urick & Bowers, 2014a). The tools leaders use to assist teachers in their empowered actions are based on the four I’s of transformational leadership behaviors from Bass and Avolio (1993). Bass and Avolio’s (1993) four factors from the MLQ or four I’s support the valuation of teachers,
students, and organization which represent the transformational leadership behaviors in their finest (Bass, 1985; Bass & Avolio, 1993, Burns, 1978; Urick & Bowers, 2014a).

The transformational leaders are the facilitators through the school improvement process, guiding and directing the appropriate course of action (Leithwood, 2005; Leithwood, 1994; Conley & Goldman, 1994). The transformational leaders display the guiding direction and influential process by forging trusting relationships with others perpetuating the school improvement process. This transformational leadership process goals include, Jadallah and Pounder’s (2009) position, of “providing an educational program to meet the intellectual, emotional, and interpersonal development needs of young adolescents has its challenges” (p. 96). The forged bonds of trust between leaders and followers fill the void of the logical and the emotional facets which ultimately influence performance and progress of students. The forged trust also nullifies the perceived fear which can envelop others and cease or retard effective school improvement progression. In researching the topic of transformational leadership, its origination developed in the business world and has even been examined in the religious sector; however, for the purpose of this study, transformational leadership is examined as a characteristic in the school management facet.

In the process of improving school instruction, the interrelationship process among leaders and teachers is highly valued in the trust formation, even though the transformational leaders are divided among administrative and interrelation actions (Fenn & Mixon, 2011; Northouse, 2007). Transformational leaders encounter both contexts and adapt their leadership skills accordingly to assist followers in progress toward school improvement. Leadership behaviors are a balance between task and
relationship comportments to lead effectively (Blake & Mouton, 1985; Fenn & Mixon, 2011). Balance in important for leadership to be fully effective. Occasionally, leaders indicate that gray zones are more problematic to decipher (Willower, 1994) in task and relationship issues. The better the leadership skill set, the more prepared the transformational leaders are to ascertain appropriate and inappropriate solutions to ambiguous issues.

Researchers have revealed that there is a direct influence on followers through inducing trust among the followers and a direct influence of trust on collective teacher efficacy (Forsyth, Adams, & Hoy, 2011); thus causing collective teacher efficacy to influence the overarching goal of improved student achievement. Hence, the need for the last and most considered effective leadership style: transformational leadership, which directs and influences collective teacher efficacy authentically (Bass & Avolio, 1993; 1995; Burns, 1978) or as Starratt (2005) expresses “beyond self-interest for a higher ideal—something heroic” (p. 130). Bass & Riggio (2006) Fenn & Mixon (2011) state “transformational leadership was in some ways an extension of transactional leadership” … because it “raised leadership to the next level by inspiring followers to commit to shared visions and goals,” challenging both leaders and followers to developing problem-solving and “leadership capacity through mentoring, coaching, and supporting” (p. 7). Marzano (2005) expresses that transformational leadership is an extension of instructional leadership through the importance of teacher contributions and the emphasis of enhanced instructional skills. Leithwood (2005) views instructional leadership as an influence application; consequently, transformational leadership exercises inspiration on developed axiom functions (Burns, 1978), then
transformational leadership embraces instructional tenets. These scholars support the multidimensional leadership as viewing the different leadership characteristics as a scaffolding overlap of one another. The multidimensional concept of leadership can evoke numerous positive effects such as improvement in empathy through interpersonal communication. Bass and Avolio (1993) operationalize Burns’ (1978) perspective of moralistic to transformational leadership for the business world including the four main factors of transformational leadership from the multifactor leadership questionnaire (MLQ) which are discussed further in the next few paragraphs. Rath and Clifton (2004) indicate the transformation of an organization through the leaders fostering effective forms of praise and recognition for the followers elicits trust. They state that an individual “can infuse positive emotions into an entire group by filling buckets more frequently. Studies show that organizational leaders who share positive emotions have workgroups with a more positive mood, enhanced job satisfaction, greater engagement, and improved group performance” (p. 28). All of which are trust creating factors.

According to Starratt (2005), “the leader sees the potential of the people in the school to make something special, something wonderful, and something exceptional” (p. 130). Interrelationship skills set effective leaders apart from managers.

In a transformational leadership qualitative study of an urban district, in which reform theory was used, Gallucci, Knapp, Markholt, and Ort (2007), express “enabled schools to respond productively to, rather than resist, district initiatives” (p. 2602). In many instances, school reform has been associated with transformational leadership; however, the focus for this investigation is on the social relationship between the transformational leadership behaviors and collective teacher efficacy and the authentic
attributes of fostering trusting relationships in principal leadership as augmenting transformational leadership behaviors in relation to collective teacher efficacy. This augmented effect of faculty trust in principal leadership and transformational leadership behaviors increase the impact on collective teacher efficacy over the individual relationship of the above on collective teacher efficacy.

In Bass’ (1985) model of leadership, he discusses “The augmentation effect [which] predicts that by measuring transformational leadership behaviors we can achieve a higher level of precision in predicting extra levels of effort and other relevant criteria…” (p. 53). Yukl (1989) even expresses “followers feel trust and respect toward the leader and they are motivated to do more than they are expected to do” (p. 272). Faculty perceptions of trust and transformational leadership behaviors can induce higher levels of motivation and teachers achieving beyond original expectations (Roeser, Arbreton, & Anderman, 1993). Motivational and results beyond expectations are transformational leadership behaviors. Podsakoff, MacKenzie, Moorman, & Fetter (1990) discuss specifically how transformational leadership behaviors from Bass’ (1985) belief of transformational leadership behaviors augment transactional leadership behaviors, to promote effective teacher characteristics such as the five components of organizational citizenship behaviors. The transformational leadership behaviors that promote the organizational citizenship behaviors are considered as the four I’s. Avolio, Waldman, & Yammarino (1991) Bass & Avolio (1993) Avolio & Bass (2004) Rowold (2005) Bass & Riggio (2006) Fenn & Mixon (2011) inform that the four factors of transformational leadership include “idealized influence,” “inspirational motivation,” “intellectual stimulation,” and “individualized consideration” (p. 7). The teacher survey
questions for this investigation on transformational leadership behaviors are modeled after these four basic factors which became operationalized for the business world by Bass and Avolio (1993).

**Idealized Influence**

Starratt (2005) posits “Leaders want to transform the school from an organization of rules, regulations, and roles into an intentional self-governing community” (p. 130), hence, leaders boost levels of participant commitment (Burns, 1978; Marks & Printy, 2003) to maximize teacher potential (Bass 1985; Bass & Avolio, 1993; 1995; Marks & Printy, 2003). Followers want to emulate transformational leaders (Fenn & Mixon, 2011), so they employ qualities such as “idealized influence” which means they are admirable, respectable, hold strong ethics, values and principles, and can be trusted by others (Bass, Avolio, Jung & Benson, 2003; Fenn & Mixon, 2011), while Rowold (2005) considers it “the attribution of charisma to the leader” and “a collective sense of mission and values” (p. 5). Due to the value of this idealized influence in transformational leadership behaviors, Bass and Steidlmeier (1999) posit that “the authentic leader calls for universal brotherhood” (p. 187). In order to establish an authentic brotherhood with teachers, leaders must possess endearing charismatic qualities, which inspire others to greatness.

Researchers have indicated the terms transformational and charismatic to be synonymous terms; leaders communicate inspiration for motivation (Khatri, 2005). Leaders build up others through authentically and charismatically influencing high levels of “pride, faith, and respect” into followers for the purpose of articulating a collective mission (Bass, 1985; Bass, Avolio, Goodheim, 1987; Forsyth, Adams, &
Hoy, 2011; p. 159). Bass and Steidlmeier (1999) state “If the leadership is transformational, its charisma or idealized influence is envisioning, confident, and sets high standards for emulation” (p. 187). According to Khatri (2005), these charismatic attributes are also learned behaviors, which have been associated with effective leaders of the past and can also assist existing and impending school leadership. These transformational leadership behaviors accentuate transparent, authentic behaviors to communicate effectively to rally the communal forces to effectuate change whether it is incremental or a complete transformation. Transformational leaders’ energetic nature must be infectious and overwhelmingly positive to perpetuate others to trust the director of the change implementations.

**Inspirational Motivation**

Transformational leaders focus on drawing out the best in others to benefit the group of followers, the organization in which they belong, and the community in which they reside (Bass & Steidlmeier, 1999). Bass and Steidlmeier (1999) express “The inspirational motivation of transformational leadership provides followers with challenges and meaning for engaging in shared goals and undertakings” (p. 188). Fullan (2005) expresses that “Leadership (not leaders) is the key to the new revolution” (p. xi); thus, transformational leadership behaviors are essential to foster the atmosphere to enhance the collective efficacy of teachers. An embedded compassion for improved collective teacher efficacy by individual teachers, as a whole, and by the principals, who inspire them to place more prominence on relevant and current pedagogy, as well as, interpersonal relationships to produce higher levels of student achievement. The dual,
established commitment for building collective teacher efficacy entails a reciprocated sense of respect and trust between teachers and principals (Fullan, 2005).

These transformational leaders must capture both the heart (charisma) and mind (vision) of the followers for the change to truly be inspired (Khatri, 2005) and motivated for initiation and sustainability. Fullan (2000) emphasizes that sustainable implementation of school organizational improvement has to have “deep ownership of teachers and principals” (p. 582). Strong ownership in an organization produces strong commitment to success and sustainability of the organization. Fullan (2005) quotes the scholars, Hargreaves and Fink (2006), in the pursuit of school sustainability, “It addresses how particular initiatives can be developed without compromising the development of others in the surrounding environment now and in the future” (p. ix), hence, “inspirational motivation” to stimulate teacher development in the quest of improving collective teacher efficacy individually and as a group. Inspired motivation among leaders and teachers transforms the organization to a higher sustainable level.

The “inspirational motivation” arrives from clear communication and inspiration by the transformational leaders to advance toward motivating others to achieve the set-forth goals (Bass & Riggio, 2006; Fenn & Mixon, 2011). Rowold (2005) emphasizes “inspirational motivation” as “the articulation and representation of a vision by the leader” (p. 5). Podsakoff, MacKenzie, Moorman, & Fetter (1990) express the importance of leaders articulating a vision as “identifying new opportunities for…. developing, articulating, and inspiring others with his or her vision of the future. Landeau, VanDorn, and Freeley (2009) discuss the importance of leadership vision when “building leadership from within takes purpose, vision and most of all, buy in
from staff (p. 58). Teachers’ motivation is usually intrinsic and infectious from following an effective leader; however, with students, extrinsic motivators may be necessary to achieve the objectives (Bass et al., 2003; Bass & Riggio, 2006; Fenn & Mixon, 2011); thus, teachers must follow their modeled leadership behaviors in fostering trust with their students in the quest to improve collective teacher efficacy.

Podsakoff, MacKenzie, Moorman, & Fetter (1990) emphasize the importance of leaders providing an appropriate model for teachers to follow by setting an example for all to see which “is consistent with the values the leader espouses” (p. 112). The values the leader espouses are considered transformational leadership behaviors.

**Intellectual Stimulation**

“Intellectual stimulation” is based on collaboration and shared decision-making as to challenge others to problem-solve and develop their own voices in a constructive manner which makes for a more effective organization (Bass & Riggio, 2006; Fenn & Mixon, 2011). Bass and Steidlmeier (1999) add the incorporation of “an open architecture dynamic into processes of situation evaluation, vision formulation and patterns of implementation” (p. 188) as components of transformational leadership behaviors of intellectual stimulation. Podsakoff, MacKenzie, Moorman, & Fetter (1990) express fostering intellectual stimulation through “promoting cooperation among employees and getting them to work together toward a common goal” (p. 112). When teachers feel intellectually stimulated, they feel inclusive in the shared responsibility of improving their efficacy individually and collectively: therefore, teachers take on a motivated ownership of its perpetuation. The shared responsibility of teachers’ efficacy both individually and collectively indicates a civic virtue, an organizational citizenship.

The contributory role in the working environment of civic virtue can stimulate each other intellectually for the good of the school system. Rowold (2005) believes teachers should be challenged to truly examine and process the problems and stimulate intellectual analysis when generating a multiplicity of solutions, hence, “intellectual stimulation”. Leaders guide others to be creative in solving problems while considering the repercussions of their decisions prior to implementing the solutions (Bass, 1985; Bass, Avolio, Goodheim, 1987; Forsyth, Adams, & Hoy, 2011). Podsakoff, MacKenzie, Moorman, & Fetter (1990) express how leaders should go a step farther and challenge teachers to “re-examine some of their assumptions about their work and rethink how it can be performed” (p. 112).

**Individualized Consideration**

“Individualized consideration” is when effective leaders are able to assist others in their own paths of self-efficacy both personally and professionally (Fenn & Mixon, 2011; Leithwood & Jantzi, 2006) to fulfill individual requirements for growth development (Avolio & Bass, 2004; Bass & Riggio, 2006; Fenn & Mixon, 2011; Rowold, 2005) and emphasizes altruistic behaviors toward others (Bass & Steidlmeier, 1999; Kanungo & Mendonca, 1996) for the purpose of helping others to a higher succession (Bass & Steidlmeier, 1999). When the combination of these four factors are incorporated (Avolio & Bass, 2004), positive influence, motivation, commitment, and workplace environments offer probable opportunities that can enhance instruction and
learning (Fenn & Mixon, 2011; Leithwood et al., 2008). Podsakoff, MacKenzie, Moorman, & Fetter (1990) discuss individualized support as part of individualized consideration in which the leaders focus on the personal relationship and show respect to the teachers and are “concerned about their personal feelings and needs” (p. 112). Individualized support directly influences organizational citizenship behaviors, which is considered as a transformational leadership behavior (Avolio & Bass, 1988; Bass, 1985; Smith, Organ, & Near, 1983; Podsakoff, MacKenzie, Moorman, & Fetter, 1990).

Burns (1978) articulates leadership behaviors as “most of the world’ decision makers, however powerful they may appear in journalistic accounts, must cope with the effects of decisions already made by events, circumstances, and other persons and hence…must act within narrow bounds” (p. 413). In some instances, leaders may lead by following their followers’ requests. The leaders listen and respond accordingly rather than react hastily. The leaders are purposely developing positive interrelationships which foster a trusting environment. Leaders conduct situational experiences in which they empower teachers to promote teacher leadership and responsibility within a highly supportive atmosphere (Bass, 1985; Bass, Avolio, & Goodheim, 1987; Forsyth, Adams, & Hoy, 2011). The significance to this investigation is in conjunction with Leithwood and Sun’s (2012) conclusions that “transformational school leadership has direct effects on teachers’ internal states and behaviors and these, in turn, influence school conditions” (p. 407-408), hence the fostering of trust is necessary. Other researchers offer a theoretical perspective on the transformational leadership efforts toward the enhancement toward on students (Leithwood, Patten, & Jantzi, 2010; Leithwood & Sun, 2012; Silins, Mulford, & Zarins, 2003).
Overlap between Transformational Leadership and Trust Theory

Leadership theory is based on humanistic psychology (Avolio & Gardner, 2005). Transformational leadership are the behaviors of the true self originating from one’s inner thoughts (Avolio & Gardner, 2005; Harter, 2002). Although Willower (1994) reminds that theories continue to evolve and scholars are always on the cusp of new theories. Avolio and Gardner (2005) discuss transformational leadership theory “to test this causal proposition, it would seem most useful to examine the authentic leadership developmental process (es) that encompasses this transformational process” (p. 319). Transformational leadership have existed other organizations which are non-school related (Marks & Printy, 2003); however, it has evolved to include effectiveness in school organizations (Leithwood, 1994, 1995; Leithwood, Dart, Jantzi, & Steinbach, 1993; Leithwood, Tomlinson, & Genge, 1996; Leithwood, Jantzi, & Steinbach, 1999) in which it centers on the relationship between leaders and followers (Burns, 1978). Bass and Steidlmieier (1999) emphasize “Authentic transformational leaders persuade others on the merits of the issues” (p. 189). Leaders create meaning through developing a communal reality positive in nature for them as well as others to energize (Avolio & Gardner, 2005) and motivate altruistically to foster an enabling school structure (Sweetland, 2001). Podsakoff, MacKenzie, Moorman, & Fetter (1990) state that altruism is “helping a specific other person with an organizationally relevant task or problem” (p. 115). This altruism, which promotes an enabling school structure, is a transformational leadership behavior (Organ, 1988; Podsakoff, MacKenzie, Moorman, & Fetter, 1990). Through the transformational leadership lens, leaders and teachers must delve into open reciprocal communication, encourage individual and collective
teacher efficacy promote trust, be flexible to the ebbs and flows of the educational tide, and view problems as opportunities (Sweetland, 2001). Transformational leadership emphasizes leaders who are transparent in expression and actions based on their core values (Avolio & Gardner, 2005; Eagly, 2005).

Avolio and Gardner (2005) even draw on the core value of a positive moral perspective as a facet of transformational leadership development reverting back to Burns’ (1978) belief of transformational leadership behaviors. Bass (1990) eventually added in the moral perspective after excluding it earlier in his transformational leadership research (Bass, 1985) and to even take it a step further Bass (1998) expressed one of the aspects of transformational leadership behaviors as being “of high moral character” (Avolio & Gardner, 2005, p. 329). I have examined other theories and appreciate their merit and contributions to leadership and instructional research; however, transformational leadership as in transformational leadership theory follows its namesake’s leadership style intently. Sergiovanni (1999) perceived that “…in our schools a practice of leadership is emerging that requires us to redefine the concept. The field is ahead of the theory and, as a result; we have a literature and an official conversation about leadership that does not account enough for successful leadership practice” (p. 42). As the theoretical framework advances to assist, successful leadership practices will include more authentic behaviors.

James McGregor Burns led the transformational leadership theoretical advancement through the developed the concept of moralistic transformational leadership in 1978 (Hasselman, 2011); however, Bass and Avolio (1993) consider transformational leadership behaviors to be operationalized in the business world to
authentically encourage trust and inspire followers; rather than moralistic. Hoy (2000) examined the authentic business approach and parlayed it into the educational realm to effectuate organizational enhancements. To thoroughly overhaul a school organization effectively, every aspect must be attended to; thus, authentically-minded transformational leaders are necessary for conceptually valuing school improvement. The transformational leadership approach effectively explains the distinctions in transformational leadership behaviors in relationship to followers’ necessities (Fenn & Mixon, 2011; Northouse, 2007) and follower actions within the organization and is applicable to improving organizational effectiveness (Bass & Riggio, 2006; Fenn & Mixon, 2011) and a personal higher moral compass (Burns, 1978). Leithwood and Sun (2009) convey “Transformational leadership is a theory about some of the critical organizational conditions on which leaders should focus their energies, as well as the specific practices likely to influence those conditions” (p. 3). Followers obtain and value the constructive, influential implications from their transformational leaders (Leithwood & Sun, 2009; Yukl, 1994; 1998; 2001; 2006). However, Khatri (2005) argues previous leadership research provided a limited scope based on rote, mundane activities (Bryman, 1992; Khatri, 2005). Humphreys & Einstein, (2003) and Muenjohn & Armstrong, (2008) acknowledge that leadership conceptual frameworks have existed through the last several decades in multiple scholarly inquiries directing previous management theories; therefore, transformational leadership theory has evolved to ensnare scholarly concentration for the previous two decades (Bass, 1985; Muenjohn & Armstrong, 2008) and to examine beyond the mundane and to dive deep into a better understanding of leadership behaviors and characteristics (Conger, 1999; Hunt, 1999;
Khatri, 2005). The value laden portion of this transformational leadership concept relates directly to the authentic nature necessary to rally teachers and leaders together to achieve individual and collective teacher efficacy through collaboration. Transformational leadership behaviors instil high values in others to foster trust. Transformational leaders assist in the development of transformational followers eventually evolving into transformational leaders themselves. According to Leithwood and Sun (2009), “Unlike many other theories of leadership that emphasize rational processes, transformational leadership theory emphasizes the importance of symbolic behavior” (p. 3). Transformational leaders model this authentic behavior which is perceived by faculty and induces increased trust between the different hierarchical levels developing a motivational educational environment. Scholars contemplate transformational leadership theory as one of the utmost prevalent methods of considering leader effectiveness presently (Humphrey, 2012; Piccolo & Colquitt, 2006). Transformational leadership theory aligns with the behaviors and actions of systematic renovation.

Leithwood and Sun (2009) state “although transformational leadership theory makes few direct claims about other types of affects, the review included a significant body of research about TSL [Transformational School Leadership] effects on student achievement” (p. 18) which is always the long term output anticipated through scholarly educational research. Bass & Riggio, (2006) Fenn & Mixon (2011) express “that the application of transformational leadership theory can move followers to accomplish more than they believed possible and perform beyond expectations resulting in increased organizational effectiveness” (p. 3) because it “is concerned with emotions,
mission, vision, goals, ethics, values meetings follower needs, and developing leadership capacity” (Northouse, 2007).

Transformational school leadership theory has become the basis of various research inquiries addressing issues relevant to trust and urban school settings (Dantley, 2003; Shields, 2010; Longwell-McKean, 2012; Santamaria & Santamaria, 2012). Poverty, language barriers, lack of parental involvement, socioeconomic levels, inequality, inequitable life opportunities, varying parental educational levels are all marginalizing conditions of most urban school districts in the United States (Shankar-Brown, 2015). When collective teacher efficacy is to be targeted for improvement in urban schools, then issues must be examined to ensure a degree of equitability is maintained to diminish any marginalized students (Capper, Theoharis, & Sebastian, 2006; Theoharis, 2007). These are issues that are directly influenced by transformational leaders. Leaders’ behaviors are constantly magnified; hence the actions, of transformational school leadership scrutiny, are elevated especially when in context with collective teacher efficacy. Transformational leadership emphasizes the rationality and understanding of cultural behaviors in the organization nested in the community when processes are devised (Leithwood and Sun, 2009). This concept of transformational leadership supports research from Maslow’s (1954) hierarchical needs of safety, security, achievement, and self-actualization in which followers aspire to acquire the values and understanding to move beyond basic leadership expectations to improve the organization (Bass, 1995; Leithwood & Sun, 2009). Forsyth, Adams, and Hoy (2011) discuss “leader leverage can…be situated in personal behavior and interactions that call attention to the higher purposes of an organization, transforming
organizational life from a system of self-interested exchanges to the pursuit of future accomplishment, hence, transformational leadership” (p. 159). This type of self-growth process is stimulated through follower/leader organizational relationships. Leithwood and Sun (2009) summarize Bass’ (1997) thoughts that “transformational leaders could be directive or participative, authoritarian or democratic, depending on the context” (p. 3). Transformational leadership encompasses all other types of leadership attributes which effectuate any and all types of personnel and organizational improvements.

Authentic behaviors are the virtuous, genuine skills which can transform followers to perceiving the need for a higher moral purpose and perceiving trust in their leadership. These authentic behaviors, steeped in transformational leadership qualities, aligned with Bass’s (1985) Contingency Theory on the multi-faceted endearing influences of leadership such as trust and honesty. The implications for examining the transformational leadership stems from Burns’ (1978) view in transformational leadership can be positive or negative to induce a transformational change; however, Bass (1985) emphasizes the importance of an authentic perception of transformational leadership in which genuineness is expressed inducing followers to strive for more authentic behaviors in themselves personally and professionally. Bass and Avolio (1993) take Burns (1978) moralistic view of authenticity and augment it to include the four main factors of transformational leadership from the MLQ. To develop a more precise understanding of transformational leadership, four key authentic elements exist: (1) self-awareness, (2) unbiased processing, (3) relational authenticity, and (4) authentic behavior or action (Avolio & Gardner, 2005; Kernis, 2003). It is a more transparent and inclusive explanation of transformational leadership behaviors which can benefit
student achievement. This transformational leadership behavior can foster an
environment to be augmented by perceived leadership trust among faculty. Bass,
Avolio, Jung, and Berson (2003) emphasize how leadership can help teachers by
“challenging them to think in ways in which they are not accustomed to thinking,
inspiring them to accomplish beyond what they are felt was possible, and motivating
them to do so by keeping in mind the values and high moral standards that guide their
performance” (p. 215) essentially to take risks for improvement of self, collectively, and
Relationships must be of high quality and authentic for genuine relationships to form
and be sustained. When authentic relationships are fashioned, shared leadership and
responsibility toward organizational decisions ensue. Trust has previously been
associated as the basis of school effectiveness (Cunningham & Gresso, 1993; Lenz,
2009); however, the relationship between faculty trust in principals augmented by
transformational leadership to collective teacher efficacy to create a strong foundation
for school effectiveness. Gratified individuals are optimistic to others generating
encouraging working settings with students benefiting from improved academic
achievement.

Sergiovanni (1999) expresses that "most current leadership is based on a theory
of motivation that has overplayed the importance of self-interest, personal pleasure, and
individual choice as the driving forces for what we do” (p. 45); however, Bass and
Steidlmeyer (1998) convey “Authentic transformational leaders persuade others on the
merits of the issues” (p. 5); since student achievement is the reason why educators and
administrators exist, collective teacher efficacy is an issue worth merit. “The merits of
the issues” are esteemed by educators, for the reason that as Starratt (2005) states, “Educators are citizens who act for the good of fellow citizens. They seek the common good first, before their own benefit or the benefit of one person at the expense of others” (p. 126).

Bass & Steidlmeier (1998); Howell (1988) discuss “Authentic transformational leaders openly bring about changes in followers’ values by the merit and relevancy of the leader’s ideas and mission to their followers’ ultimate benefit and satisfaction” (p. 5). Hampton (2010); Quantz, Rogers, & Dantley, (1991) emphasize transformational leadership by stating, “accomplishment of this dream will be achieved through the establishment of a common purpose by all stakeholders, empowerment for authentic change, and challenging the injustices of the status quo” (p. 186). Demonstrate the behaviors and actions you want followers to emulate. Starratt (2005) emphasizes “the responsibility of leadership affect[s] the core work of teaching and learning. These structures and processes are not ethically neutral. They either promote the integrity of the school’s core work—authentic learning—or they curtail or block its integrity” (p. 128).

**Synthesis**

To synthesize this investigation and its purpose, the literature has provided the support needed to understand the unique dynamics of this secondary inquiry. Even though principals are held accountable for the achievement outcomes within their schools, their impact is mainly indirect on student achievement (Tschannen-Moran & Gareis, 2015); however, principal leadership fosters faculty trust and exhibits transformational leadership behaviors which influences collective teacher efficacy.
Transformational leadership behaviors do, in fact, develop a significant relationship on collective teacher efficacy augmented by faculty trust in principals. The significance of this transformational leadership/faculty trust in principal inquiry has valuation. Its purpose to extend the existing literature on both of these areas and enhance the extended knowledge base of the dual relationship on collective teacher efficacy is fulfilled. These behaviors form the basis for fostering and connections in rapport to occur among teachers and leaders. Faculty trust in principals relates to Starratt’s (2003) integration of “democracy as participation in communal self-governance can be enacted in its most generous sense at the local level, in small communities, in small organizations like schools…” (p. 17). This leadership is a generous expression which can unite different individual characteristics to foster teacher efficacy collectively. Bass and Avolio (1997); Muenjohn and Armstrong (2008) emphasize that transformational leaders and six key transformational leadership behaviors: “(1) identifying and articulating a vision, (2) providing an appropriate model, (3) fostering the acceptance of group goals, (4) developing high performance expectations, (5) providing individualized support, and (6) stimulating intellectual stimulation” (Podsakoff, MacKenzie, Moorman, and Fetter, 1990; Forsyth, Adams, & Hoy, 2011; p. 158-159), which adhere to four factors of transformational leadership: *idealized influence, inspirational motivation, intellectual stimulation* (Avolio, Waldmann, & Yammarino, 1991; Bass, 1985; Bass & Avolio, 1993; Bass, Avolio, & Goodheim, 1987; Forsyth, Adams, & Hoy, 2011; Hoy, 2000), *and individualized consideration* (Avolio, Waldmann, & Yammarino, 1991; Bass, 1985; Bass & Avolio, 1993; Bass, Avolio, & Goodheim, 1987; Forsyth, Adams, & Hoy, 2011; Hoy, 2000).
These four specific characteristics of transformational leadership behaviors are examined and compared in a meta-analysis empirically measuring instruments directed at developing leadership skills (Leithwood & Sun, 2012, 399). Other transformational leadership behaviors associated is charisma (Burns, 1978), and charisma components of envisioning, empathy, empowerment, (Choi, 2006). These transformational leadership behaviors directly influence collaboration and trust among faculty.

There are many possible implications with both facets of transformational leadership behaviors and collective teacher efficacy. Fullan (2005) quotes himself from 2004 on school organizational implications as “…there has been a growing presence of capacity-building strategies including leadership development, networking, lateral capacity building, initial teacher education and school and district self-review” (p.179). Capacity building is guided by efficacious principal leadership collaborating with teachers. Goodwin, Wofford, and Whittington (2001) summarize the investigation relationship of transformational leadership and collective teacher efficacy when examining their specific linking component of trust, in which leaders “need to be informed that they should reward and recognize effective performance. This reward would not be the focus of a leader-follower relationship based on an exchange agreement, but would be an aspect of the values for fairness and trust that seem to be fundamental transformational leadership” (p. 772). Trust is a transformational leadership behavior. Effective leaders foster trust with their teachers. The resulting effective performance and the internal/external rewards develop an altruistic sense of accomplishment in the school and community. Bass and Avolio (1993) believe that leaders are role models and should create and fit into a positive social culture among the
followers. As an altruistic behavior dictates the actions of effective leaders, they develop into empathic listeners of their followers in order to endow them with the necessary proactive, innovative techniques to advance educator potential and instructional improvement. Bass and Steidlmeier (1998) express “Transformational leaders can play important roles in organizational development. They can make use of process observation and many of the techniques of OD [organizational development] and improved understanding of group dynamics” (p. 15).

Lowe, Kroeck & Sivasubrahmaniam (1996), Bass & Steidlmeier (1998), Urick (2012) inform “meta-analytical evidence supports the generalizable findings that transformational leadership is more effective, productive, innovative, and satisfying to followers than is transactional leadership (p. 3). To maintain the effective leadership, Burns (1978) tells them that “in real life the most practical advice for leaders is not to treat pawns like pawns, nor princesses like princesses, but all persons like persons” (p. 462). In other words, be authentic and genuine to others in the workplace.

Summary

The above literature provides the groundwork for the linking of transformational leadership behaviors as reflected in the faculty’s perceptions of principal leadership to collective teacher efficacy. The school background characteristics of urban schools have been found to be related leadership, trust and collective teacher efficacy. As discussed in this chapter, faculty trust in leadership and transformational leadership, as well as the interaction between them, can influence collective teacher efficacy in urban schools. In fact, trust and transformational leadership have been situated as malleable factors, which might moderate some of the barriers to student success of urban schools,
such as the effects of free and reduced lunch. This study seeks to test the extent that school background variables of urban schools, transformational leadership and trust influence collective teacher efficacy. Further, this study adds to the literature by demonstrating their individual effects, an interaction effect between leadership and trust, and the extent that these might moderate the effect of background variables on teacher collective efficacy. These findings would inform local, urban school leaders about leadership practices which may help to build instructional capacity with an increase in collective teacher efficacy.
Figure 1. This logic model explains the simplified relationship between the variables. The literature gathered and presented in chapter supports each of these variable relationships. The urban school background characteristics build barriers to impacting collective teacher efficacy. Faculty trust in principals influences collective teacher efficacy and negates the school antecedents. Transformational leadership also influences collective teacher efficacy and negates school antecedents. Faculty trust in principals combined with transformational leadership behaviors and recoded as an interaction has a greater effect collective teacher efficacy, while negating the school antecedents.
Chapter 3: Methods

As leadership efficacy research has evolved to enlisting the Transformational leadership models, a broad scope of positive behaviors and responsibilities are expected and necessary to foster faculty trust and additionally student achievement. Leadership, today, is held accountable for their schools and districts results evidenced by positive growth in student achievement (Ross & Gray, 2006). Marzano and Waters (2001) express “Research increasingly points to the relationship between effective leadership and increased student achievement” (p. 12.).

The research methods to accomplish the investigational tasks are discussed in this chapter. This chapter also delves into a portion of an existing data source provided by The Oklahoma Center for Education Policy (OCEP, 2015) under the supervision of the University of Oklahoma Tulsa branch. Information provided includes the data collection process comprised of the sample, the instrument, instrument reliability and validity, analytical technique, basic procedure, and assumptions of the existing investigation. This study answers the research questions through secondary data analysis of the OCEP (2015) survey. Included, is a detailed description of the data source utilized to obtain the existing results and dissection model used to examine and analyze the results. The purpose of this investigation is to examine the relationship between faculty trust in principals and collective teacher efficacy and then at the relationship between transformational leadership behaviors to collective teacher efficacy.

This study is a correlational study. As a correlational study, the focus is on the relationships between the variables. The relationships examined for this study is based
on a specific sample from a Midwestern urban school district and is not considered generalizable. The secondary data sample is also considered nonexperimental and the findings are limited to this specific sample population. The purpose for the findings of this study is to provide observational understanding of the relationships between leaders and teachers; so that the local leaders might examine prescriptive strategies to enhance leadership behaviors to foster trust among faculty. By fostering trust among faculty, the expected output is improved collective teacher efficacy, which in turn can induce student success.

Even though the original data has been accumulated in a cross-sectional and longitudinal format, this study only examines a cross-sectional view of specific, narrowed subject matter. The narrowed subject matter provides insight into the specific characteristics in the leadership and teachers relationships.

Sample

This investigation is a secondary analysis of a project started in 2010 by OCEP (2015) as a responsibility of The University of Oklahoma Tulsa branch. This resource sector’s purpose was to provide relevance and relationship in school systems in a multi-faceted forum. The school system examination was at the local level for specific prescriptive analysis. The local level was a Midwestern urban district. With the locale in an urban setting, the investigation can be generalizable for both scholars and practitioners alike. The future generalizable purpose could assist in leadership training programs for novice and existing school leaders to promote higher levels of understanding of faculty perceptions and expectations. This research is important according to current research examination, in that there is a limited scope of how the
interaction of FTP X TLB relates to collective teacher efficacy. This study looks to extend that limited scope.

**Participants and Locale**

Since the original data set derived from a Midwestern urban district, this study includes data from N=74 schools. The 74 schools, within urban district with data aggregated to the school level from teacher surveys A and B collected in 2015, provides the basis of this secondary data study. The teacher surveys A and B were used to indicate the level of effectiveness of the transformational school leadership behaviors by site and/or district administrators in the urban setting. The school leadership focus for this study is the site administrators. The site administrator related results are extrapolated from the surveys. Portions of the teacher surveys A and B is the instrument utilized for this study. The portion components include: transformational leadership, faculty trust in principals, and collective teacher efficacy. After each of these components is examined individually, then they are examined in a linking interaction analysis. The transformational leadership behaviors are linked to faculty trust in the principals toward the relationship of collective teacher efficacy in the urban school setting.

Since the survey data utilized for this investigation is from an existing set of data, additional research and communication was obtained from one of the OCEP (2015) Co-directors and Senior Research Scientists throughout the research process. The logistics of this Midwestern urban district consists of approximately “42,000 students, 7,000 employees, and 88 campuses.” The student demographics include: 28.7% Caucasian, 29.48% African American, 26.13% Hispanic, 7.39% Native
American, 1.5% Asian, and 6.79% other. Due to the cultural diversity, Rowold (2005) expresses “in cross-cultural research, it is important to have descriptive data in order to compare different cultures” (p. 16). The Midwestern urban district demographics provide diversity within the student population, thus, the decisions and objectives are directed and determined accordingly. Approximately 5,000 of those 7,000 employees are instructionally related through working as a teacher or administrator in this urban school district.

**Data Collection of Secondary Data**

Secondary data can be a powerful adjunct toward increasing awareness of research among scholars and practitioners. The data collection was provided through the SPSS data forum from OCEP. This secondary data provided is a composite of many different aspects within an education organization. This study seeks to carve out a specific calculation portions from the two different faculty surveys to extrapolate the data for this investigation. By using a cross sectional view of the secondary data from OCEP scholars, the established instrument and data provides a greater depth and quality of the detailed portion to be examined. This use of a secondary study also increases and supports the validity and reliability in this instrument existence. This study should offer both scholars and practitioners research on varied tactics to enhance teacher/leader relationships through providing a specific sampling of relationship examination. The specific extraction from the secondary data set was the focus on specific input and output variables in relation to academic improvement of students.

The electronic codebook for this investigation contained the variables of interest and their data set results. The data set was examined for missing value codes, as well
as, descriptive variable factors. The original data sources were already compiled and aggregated to maintain the confidentiality of the original survey population and ready for external examination. The data was de-identified. The assumptions section addresses the concerns of the multiple regression analysis for the de-identified secondary data.

Instrument

The OCEP (2015) data encompasses an array of subject matter on “Student Psychological Health and School Capacity”. According to the OCEP (2015) project background of the study, the information used to promote student achievement must come from the ones who serve those children rather than from “‘off-the-shelf’ reform models and policy mandates transplanted from far away or externally imposed on schools by federal and state policy” (p. 5). By focusing on the local data, local leaders and teachers see needs specific to their unique structure of their district and can prescribe solutions accordingly. Since locals are using this data from these surveys for decisions, the questions require the relevance for an urban school context and their unique circumstances. The unique circumstances set the stage for the possibilities of cross-sectional from 2015 for all data portions used for this study with the exception being the 2013 index score. The cross sectional view is a snapshot from the longitudinal data collected from 2010 to present. Since this data received is progressively long term for the teachers and leadership, the teachers and leadership can witness the levels of improvement that they have contributed to the betterment of the urban district in which they serve. This is a cross-sectional view of the specific portions of teacher survey A Section III. Organizational Capacity. More specifically under the
subheadings: Transformational Leadership Behavior. Also, in the Omnibus scale of trust in teacher survey B, faculty trust in principals was embedded within the larger component of trust. All of the questions under the subheadings as aggregated variables. Also, the variable of Transformational Leadership Behavior and Faculty Trust in Principal served as the independent variables in my study, as stated before in this paper. Also for a detailed account of the entirety of questions for these two independent variables, go to the sections below at the associated headings in chapter three.

A cross-sectional view of Section IV. Instructional Capacity subheading Collective Teacher Efficacy provided the seven questions in which was used as the data for the output of this dependent variable. For the detailed account of the list of questions go to the section below on Instructional Capacity in chapter three.

Instrument Summary Detail

OCEP (2015) faculty surveys A & B express questions were directed to teachers in a Midwestern urban district for the purpose of local stakeholders better understanding their community school needs. At the local level, leaders continue to use this instrument as a tool to make the necessary changes within the school system to respond and overcome any shortcomings to enhance student achievement. Also, to relish in the windfall of student and school successes. The results gathered from these surveys have been de-identified prior to being sent for my investigation, as stated before. The data was aggregated as one variable containing collective faculty perspectives on leadership.

Faculty survey A has the following sections. The first section is transformational leadership behavior. Under this heading is questions directed to teachers about the site principal. Section one is pertinent to my investigation. The
The second section is organizational citizenship behavior. These questions are directed about colleagues. The third section is teacher workplace isolation. It is also questions about colleagues. The next section is over Teacher/Leader Effectiveness (TLE) evaluation process. The fifth section of this survey is targeting collective teacher efficacy and is pertinent to this study. In the sixth section of the survey, student readiness to learn questions are presented. The seventh section contains critical friends group (CFG) performance and is not required for this study. The eighth survey section is trust in district administration. The last survey section of faculty survey A is faculty trust in parents.

Faculty survey B was also the instrument used for this investigation. It is the Omnibus trust scale which has questions embedded into the format designed to understand teachers’ perceptions of trust in principals. The questions are mixed with others based on the all the components of collective trust. This investigation is extrapolating only the questions about faculty trust in principals to be used as secondary data. The second section of this survey is enabling school structure. The third survey section is faculty academic emphasis. The next survey section is program coherence. In the fifth section of the survey is principal support of student psychological needs. Teacher perceived interdependence with parents is the sixth section of this survey. The last section is professional development opportunities. For a full account of the faculty surveys A and B, refer to Appendix G & H.

**Instrument Reliability and Validity**

If instruments are not consistent and accurate, there would be no future need of their use. Since this instrument has been out and used repeatedly, the reliability and
validity have been verified. The reliability of an instrument is a valued portion of research for both scholars and practitioners based on its consistency (Vogt, 2007). Due to the importance of the reliability and validity, specific concepts related are highly valued such as Cronbach’s alpha. Vogt (2007) adds “Cronbach’s alpha is the mother of all split-half reliabilities” (p. 115). In researching reliability, Cronbach’ alpha is a prevalent measurement representation. For the transformational leadership behavior portion of the instrument, Cronbach’s alpha measurement offers a reliability level of .94 on the TL Scale (OCEP Principal Report, 2015). Reliability focuses on the “consistency of either measurement or design” (Vogt, 2007; p. 114). When examining the reliability of faculty trust in principal portion of the instrument, the Cronbach’s alpha maintains a characteristic array of .90 to.98 (OCEP District Report, 2015).

Instruments require accuracy to be able to be replicated, hence validity is “the truth or accuracy of the research” (Vogt, 2007; p. 117). In the transformational leadership portion of survey B, the construct, concurrent, and predictive validity were supported by the factor analysis structure (OCEP Principal Report, 2015). In survey A over Faculty trust in principals, there was discriminant validity of the concept as well scale support of the construct according to the factor analysis (OCEP Principal Report, 2015). Creswell (2009) goes on to convey “external validity threats arise when experimenters draw incorrect inferences from the sample data to other persons, other settings, and past or future situations” (p. 162). Some external validity threats could exist in this investigation. One concern of external validity threats included high poverty schools versus high parent involved schools. Coleman, Campbell, Hobson, & York (1966); Coleman (1990); Hoy & Hannum (1997); Hoy et al., (2007); Kirby &
DiPaola, (2009) are concerned about external validity, so they posit “the findings of several studies have suggested that socioeconomic status has an impact on student achievement” (p. 81); therefore, these distinctions must be examined to precisely understand the link from transformational leadership behaviors to collective teacher efficacy.

On the dependent variable of collective teacher efficacy, the reliability of this variable must be proven strong for the scholars to build studies based on the results. OCEP District Report (2015) states “Reliability, as measured by Cronbach’s alpha, typically ranges from .90 to .98. Factor analytic studies of the scale support the construct and discriminant validity of the concept” (p. iv). Since collective teacher efficacy is so important in relation to student achievement in urban schools, the validity is equally important. According to OCEP (2015), Goddard, Hoy, Woolfolk Hoy (2000), for the collective teacher efficacy portion of this survey, the “content and predictive validity of the scale is strong, and an alpha of .96 indicates strong item consistency” (p. v).

Variables

Variables are the components used to examine the data. Since this study is examining two independent variables, there is an established recognition between the relationship between trust and transformational leadership behaviors. However, this study has indicated that there are unique differences, as well as, overlaps between the two variables of interest. The independent variable, to establish and provide the base level of the investigation, is trust, more accurately faculty trust in principals. The next step in the establishment of the variables is to look at transformational leadership behaviors independently. Finally, the interaction independent variable, which is the
focus of this investigation, is faculty trust in principal X transformational leadership interaction. This interaction exhibited that the two interacting together apply a greater effect on collective teacher efficacy than either of the individual independent variables of transformational leadership and faculty trust in principals on their own. This application of influence is occurring in the presence of urban school antecedents, also known as school background variables. The school background variables are to be considered and explained to further understand the complications of investigations using human subjects or the situational circumstances in which a majority of urban students reside.

Instructional capacity [collective teacher efficacy] is the dependent variable in this study. This criterion variable is the focus of the predictions of the investigation, and the data analysis determines the significance of the criterion variable’s relationship with the individual independent variables and the interaction created independent variable. The independent and dependent variables, examined for this study, are contained to two faculty surveys, both Faculty Survey A and Faculty Survey B. Faculty trust in principal is arranged in Faculty Survey B and aggregated at the school level. Transformational leadership behaviors and collective teacher efficacy are recorded in Faculty Survey A for aggregation at the school level. The instructional capacity is averaged together to form one school level response as a collective theoretical perspective of the represented faculty perception.

**School Context Background Characteristics**

School background variables in urban school context are established from a combination of the OCEP (2015) district report and the Oklahoma State Department A-
F report card. The urban school background variables vary greatly from affluent and/or rural schools. This study accounts for these school background variables in relationship to the variables of interest, which are faculty trust in principals and transformational leadership behaviors, and collective teacher efficacy. The school background variables are also considered as the urban context variables for this study. The specific context variables from urban schools, which can vary from affluent schools, are % white (Newmann, King, & Youngs, 2000; Walstrom & Louis, 2008), grade level (elementary & secondary) (Firestone & Pennell, 1993; Newmann, 1996; Newmann, King, & Youngs, 2000; Hargreaves, 2002; Lee & Loeb, 2000; Walstrom & Louis, 2008), free/reduced lunch rates (Petersen, Sayre, & Kelly, 2007; Adams, 2013), and math index score (Newmann, King, & Youngs, 2000; Bryk & Schneider, 2002; Forsyth, Adams, & Hoy, 2011; Adams, 2013). Originally running the assumptions in the pre-analysis stage, it was discovered there is a large overlap between percent white, free/reduced lunch, and math index. Since one of the main antecedents in urban school contexts is free/reduced lunch, then free and reduced lunch rate became the obvious choice to represent the urban school context variable for the other overlapping two. However, percent white and the math index scores are reported and analyzed in different facets in chapter four.

**Instructional Capacity (Collective Teacher Efficacy)**

Instructional Capacity is the criterion variable documented in the OCEP 2015 District Report Section IV heading; however, the more specified component of instructional capacity to be examined in this study, is collective teacher efficacy. The questions in teacher survey A presented to the faculty respondents on the variable of
collective teacher efficacy are as follows: (1) Teachers here never give up, even if a child doesn’t want to learn. (2) Teachers here are confident they can motivate their students. (3) Teachers in the school are able to get through to the most difficult students. (4) Teachers here have the skills needed to produce meaningful student learning. (5) Teachers in this school believe that every child can learn. (6) Teachers in this school have the skills to deal with student disciplinary problems. (7) Teachers here are able to meet the specific learning needs of each child. All of these seven questions are examined as one variable aggregated to the school level. These surveys were completed by faculty respondents and documented on a 6 point Likert Scale. One is strongly disagree to six is strongly agree.

According to Adams (2013) and OCEP District Report (2015), “Instructional capacity is based on the availability and use of two interdependent properties: (1) resource in schools that improve teaching effectiveness and (2) social processes that facilitate professional learning” (p. 24). Collective teacher efficacy refers to the social processes that facilitate professional learning for this study. This happened through examining the teacher responses to the faculty surveys A and B. Collective teacher efficacy is the perceptions communal stance toward advancing self and others, more specifically students, through the power of positive communication and reinforcement educatory skills (Goddard & Goddard, 2001; OCEP, 2015). Mayer, Mullens, and Moore (2000) offer a study indicating school level indicators discussing “school faculty that collectively takes responsibility for student learning” (p. 36). This concept acknowledges accountability for promotion of student achievement is collective not just individual. Angelle, Nixon, Norton and Niles (2011) state “An outcome of collective
efficacy is the concept of collective responsibility” (p. 6). Ross and Bruce (2007) indicate that high collective teacher efficacy levels, in teachers, promote them to continue to persevere when working with at-risk students and face unique challenges otherwise overlooked. Teachers can even uplift other teachers through beneficial support and connection (OCEP, 2015). Ross and Bruce (2007) concluded in their study that “high-efficacy teachers have positive attitudes toward low achieving student, build friendly relationships with them, and set higher academic standards for this group than do low-efficacy teachers” (p. 51). When teachers feel nurtured, supported, and accepted in their working environment, their skills can blossom and draw out the enriched abilities in others; hence, advancing the overall instructional capacity for all students (OCEP, 2015). Although improving instructional capacity does not happen overnight, it can increase gradually, as it infiltrates, it modifies the cultural status quo (Bryk & Schneider, 2003). The questions from the survey ask individual teachers specifics on how they, as a faculty, behave and act socially to promote student learning (Bandura, 1993; OCEP, 2015). The focus of Faculty Survey A (2015) covering collective teacher efficacy is emphasized through level indicators of motivation of the teachers to educate the most difficult and resistant of children.

**Faculty Trust in Principals**

The variable of trust is rooted in the foundation of psychological research (Rotter, 1980; Erickson, 1968) more specifically, the social capital theory focusing on relational connections among humans (Coleman, 1990). Faculty trust in principal, a component of trust, is the other independent variable and is listed under the same Section III., as transformational leadership behaviors, entitled Organizational Capacity.
These questions are integrated with other components of trust based questions related to trust in students, in other teachers, and in parents. The entirety of trust based questions was embedded in teacher survey B under the heading of Omnibus Trust Scale is as follows: (1) The teachers in this school have faith in the integrity of the principal. (2) Teachers in this school trust the principal. (3) The principal in this school typically acts in the best interests of teachers. (4) Teachers in this school can rely on the principal. (5) The principal in this school is competent in doing his or her job. (6) The principal doesn’t tell teachers what is really going on. (7) In this school the authority of the principal is used to support teachers. These seven questions are combined to create one variable to be aggregated at the school level on a 6 point Likert scale, as strongly disagree to strongly agree (OCEP District Report, 2015). The Omnibus Trust Scale portion of survey B derives from the research of Forsyth, Adams, and Hoy (2011). The school mean of the perceptions of the teachers toward the principal determine the level of faculty trust in that principal.

Faculty trust in principals are the teachers’ perspectives to “the quality of relationships between faculty and the principal” (OCEP District Report, 2015, p. iv). Tschannen-Moran and Hoy (2000) exhibit the teacher perceptions association to the OCEP 2015 District Report subheading of organizational capacity by “emphasiz[ing] ethical behaviors and a work environment of openness, trust, and respect” (p. 577). These behaviors induce trust. OCEP District Report (2015) expresses “Higher principal trust indicates that faculty respect and trust the leadership of the principal” (p. iv). When faculty trusts leadership, they replicate the actions toward their students and subsequently foster trust with students. This behavior has a trickledown effect that can
eventually reach a community. The more it is entrenched, the opportunities increase for an improved organizational culture. Trust and collective teacher efficacy are directly related to improving the organizational culture (Bryk & Schneider, 2003).

**Transformational Leadership Behaviors**

Transformational leadership behaviors is located in the Faculty Survey A and listed in the OCEP 2015 District Report Section III. under Organizational Capacity The OCEP 2015 District Report articulates the transformational leadership behaviors with seven key factors: “articulating a vision, modeling, fostering group cohesion, setting high performance expectations, providing individualized support, challenging assumptions and the status quo, and recognizing outstanding work” (p. iii). The entire list of questions is to be used from the survey and was designed to address the principal’s behaviors on being inspirational, modeling appropriateness, and is considerate and committed to promoting positive professional growth for the good of the students and the organization (Faculty Survey A, 2015). The transformational leadership behaviors questions are as follows (1) Inspires others with his/her plans for the future. (2) Provides a good model for me to follow. (3) Develops a team attitude and spirit among faculty/staff. (4) Insists on only the best performance. (5) Behaves in a manner thoughtful of my personal needs. (6) Asks questions that prompt me to think. (7) Commends me when I do a better than average job. All seven questions are gathered from faculty respondents to form one data point on a 6 point Likert Scale to be aggregated at the school level.

Transformational leadership behaviors promote others to “go beyond their self-interests or expected rewards” (Bass & Avolio, 1993, p. 118) and to move beyond their
existing realms to more authentic regard of education for students (Boal & Bryson, 1988; OCEP District Report, 2015). Inspirational and motivational leadership (Bass, 1985; Avolio, Waldman, & Yammarino, 1991; Bass & Avolio, 1993; OCEP District Report, 2015) guides and supports faculty and students for higher levels of academic improvement. Transformational leadership behaviors are the independent variable for this investigation. OCEP District Report (2015) expresses “reliability, as measured by Cronbach’s alpha was .94 for the Transformational Leadership Behavior Scale, suggesting strong internal consistency among the items. The structure of the factor analysis supported the construct validity, as did concurrent and predictive validity procedures” (p. iii).

**Analytical Technique: Forward Stepwise Multiple Regression**

Multiple regression is the quantitative measurement applied to secondary data. The purpose of this study was to test the independent effects of school background variables, trust and transformational leadership on teacher collective efficacy. However, since there is a theorized overlap between trust and leadership, it was important to compare their independent effects as well as test an interaction effect. A stepwise multiple regression allows the researcher to isolate, and then build effects for comparison and measures of added variance explained. This stepwise structure was beneficial to test the nature of trust and transformational leadership on collective teacher efficacy but also to test the extent that they might moderate school background variables. These specific variables were taken from the OCEP (2015) secondary data. A forward stepwise multiple regression analysis was explored through the SPSS computation program. According to Faraway (2002), “Regression analysis is used for
explaining or modeling the relationship between a single variable \( Y \), called the \textit{response}, \textit{output} or \textit{dependent variable}, and one or more \textit{predictor}, \textit{input}, \textit{independent} or \textit{explanatory} variables, \( X_1, \ldots, X_p \). When \( p = 1 \), it is called simple regression but when \( p > 1 \) it is called multiple regression (p. 13). Multiple regression is a method to examine predictor variables (i.e. demographics, faculty trust in principals, transformational leadership behaviors).

The regression analysis purpose is used to determine impact the criterion variable by the predictor variables (Cohen & Cohen, 1983). When one variable advances or declines, the other corresponding variables produces the correlated effects. Dela Cruz (2011) states “The value of \( R \) increase[s] with each addition of the predictor variable that enters the regression” (p. 98). Regression is used for the variance for prediction; thus, being beneficial to the replication of this study in the future. The multiple regression equation explains the involvement of each variable and its relationship to the other variable(s). The beta values are the standardized coefficients which estimate the level of influence on the criterion variable (Brace, Kemp & Snelgar, 2000; Dela Cruz, 2011). This was the original equation before the pre-analysis via the assumptions tested.

\[
\hat{Y}_{(\text{instructional capacity})} = \beta_0 + [\beta_{(\% \text{ white})} + \beta_{(\text{grade level})} + \beta_{(\text{free/reduced lunch})} + \beta_{(\text{math index score})}] \\
+ [\beta_{(\text{faculty trust in principals})}] +[\beta_{(\text{transformational leadership})}] + [ \beta_{(\text{faculty trust in principal X transformational leadership})}]
\]

After the pre-analysis stage, each of the assumptions were tested. When the assumptions were tested, there were overlaps discovered among the urban school
context variables. Since there was an overlap, the equation had to be modified to fit the evolved equation.

\[ \hat{Y}_{(\text{instructional capacity})} = \beta_0 + [\beta_{(\text{grade level})} + \beta_{(\text{free/reduced lunch})}] + [\beta_{(\text{faculty trust in principals})}] + [\beta_{(\text{transformational leadership})}] + [\beta_{(\text{faculty trust in principal X transformational leadership})}] \]

Variance analysis offers a precision pathway to navigate through the complexities of the data set. Mertler and Vannatta (2002) discuss how variance defines the treatment conditions by evaluating the differences from the mean of variables through simple t-tests in ANOVA. The treatment effect shows statistical descriptions of the comparison of the variables. Error variance may exist in the original data set; however, is accounted for in the use of the secondary data.

Even though multiple regression does not require the independent variables to be separate no matter the expanse, this analysis involves more than one independent variable and posits linearity (Vogt, 2007). The multiple regression analysis took place in a forward stepwise format (see figure 2, 3, 4, & 5). Vogt (2007) explains “In multiple regression, if the new variable is at a higher level, one adds a new equation to the first equation. By so doing one can measure the effect of a variable or variables at a higher or a grouped level” (p. 217). In each step of the stepwise multiple regression, a predictor variable was added, while another was removed, to the equation to express the degree of influence on the collective teacher efficacy. The type of forward stepwise multiple regression was manually entered into the SPSS program to prevent any conflicting interactions between variables of interest. The first step was to examine the school context variables (grade level, FRLRate) in relationship on collective teacher efficacy. The second step was to add faculty trust in principals in relationship on
collective teacher efficacy. The third step was to remove the faculty trust in principals, then add transformational leadership to examine its relationship on collective teacher efficacy. The last step removed the transformational leadership and then added the interaction of faculty trust in principal X transformational leadership as combination of two predictor variables in relationship on collective teacher efficacy. The data extrapolation exposed each predictor variable’s individualized influence on instructional capacity. The process occurred in four steps as the stepwise multiple regression analysis. Multiple regression is a type of multiple linear regression which is used to develop quantifiable equations for predicting values of the dependent variables (collective teacher efficacy) for the greater population (Kean.edu, nd).

Vogt (2007) further asks “What is the effect on the outcome variable of a one-unit increase in a predictor variable, while controlling for the effect of the other predictor variables” (p. 218)? During this investigation, the school background variables and how they may relate to the correlation between the bivariate independent variables and the outcome were considered. When taking into account all the predictors (school background variables, faculty trust in principals, and transformational leadership), the outcome (collective teacher efficacy) became more precisely explained and correlated to each independent variable. Bivariate correlations were examined between independent variables (trust) and (transformational leadership) and dependent variables (collective teacher efficacy) through the development of calculated equations (Kean.edu, nd). The multiple regression stepwise process is summarized below:
Step 1: School Background (grade level & %FRL) → Instructional Capacity (collective teacher efficacy)

**Figure 2.** Block 1 – School Background Variables Entered

Instructional Capacity = Grade Level + % FRL

Step 2: School Background (grade level & %FRL) → Instructional Capacity (collective teacher efficacy) → Faculty Trust in Principal

**Figure 3.** Block 2 Faculty Trust in Principal added

Instructional Capacity = (Block 1 variables) + (Faculty Trust in Principal)
Figure 4. Block 3 Transformational Leadership added

Instructional Capacity = (Block 1 variables) + (Block 2 independent variable) + (Transformational Leadership)

Figure 5. Block 4 – Faculty Trust in Principal x Transformational Leadership added

Instructional Capacity = (Block 1 variables) + (Block 2 independent variable) + (Block 3 independent variable) + Faculty Trust in Principal x Transformational Leadership
Basic Procedure

Multiple regression is the quantitative measurement of this non-experiment which was used to explain this secondary study. In SPSS, there is an automatic option in which the data can run in forward or backward stepwise models; however, in this study, separate models were chosen to use for manual assessment of the individual variables. The separate models were used to ensure precision of the variable analysis occurred in the multiple regression process. Mertler and Vannatta (2002) discuss “The purpose of multiple regression is to model or group variables that best predict a criterion variable (DV)” (p. 194). The variables in this investigation were situated and collected at the school level. Mertler and Vannatta (2002) discuss simple regression as examining variables for correlations between the IV and the DV. Simple regression was used to explain the relationship between two variables (See Figures 10-12). Multiple regression was a bit more complicated. There was more than one independent variable involved. Even an interaction was created to examine the theory a step further. Mertler and Vannatta (2002) emphasize regression is examining the relationship between the variables using Pearson R correlation to display “the stronger the relationship the higher degree of predictability between X and Y” (p. 166). The importance of analyzing the data through multiple regression was to have the opportunities to observe and understand the slope of the interactions among the independent and criterion variables. These interaction observations prepare educators and scholars for other related potential outcomes in similar circumstances. In the case of these variables, the tables in chapter four show the practitioners the potential outcomes for them if they apply these established principals to their leadership
behaviors. These variables were applied manually using a stepwise multiple regression analysis to make each model, which is a statistical analysis. This type of regression, “is often used in studies that are exploratory in nature” (Aron & Aron, 1999; Mertler & Vannatta, 2002). More specifically, forward stepwise multiple regression provides each level is an easy to understand format. Mertler and Vannatta (2002) state “The bivariate correlations among all IVs and the DV are calculated. The IV that has the highest correlation with the DV is entered in the analysis first” (p. 170). With multiple regression, there are multiple steps to ensure accuracy. Mertler and Vannatta (2002) add “The next variable to be entered in the analysis is the IV that contributes most to the prediction of the DV, after partialing out the effects of the first variable” (p. 170). By sorting out the IVs, this study was able to examine more closely the level of significance between the investigated IV and DV’s relationship. The school variables were first. Trust was the second IV manually added and then was manually removed to examine the third, transformational leadership behaviors. Then transformational leadership was removed to manually add the interaction in the final step of this forward stepwise multiple regression investigation (Mertler & Vannatta, 2002). These manually added and removed variables were descriptive of developing separate models to examine the forward stepwise multiple regression, rather than the traditional feature on SPSS of the automatic option. Mertler and Vannatta (2002) then express “This effect is measured by the increase in R (R) due to the second variable” (p. 170). This is a continual process until significant observations cease toward the DV (Mertler & Vannatta, 2002).
A logic model is located on the previous pages to describe how this study examined each of the variables using multiple regression. The background variable which had to be contended with throughout this investigation was school background characteristics (grade level & %FRL). This was model 1 and step 1 in the stepwise analysis. The input variable, which research has repeatedly shown to relate with the intended output, was faculty trust in principals. This was the second model and step 2 in the stepwise analysis. Faculty trust in principals was manually added. The forward step in this analysis is the focused input variable of transformational leadership behaviors. This was the third model and step 3 in the stepwise analysis. Faculty trust in principals was manually removed and transformational leadership behaviors was manually added. Then, the final step was the interaction. This was the fourth model and step 4 in the stepwise analysis. Transformational leadership behaviors was manually removed and the interaction (FTP X TLB) was manually added. Descriptive statistics was used to explain the relationships. Descriptive statistics are typically represented by tables with minimal variables to analyze (Mertler & Vannatta, 2002). Multiple Regression is used for the variance for prediction; thus, working well within this study.

**Pre Analysis Descriptions of the Assumptions for Multiple Regression**

Assumptions must be addressed when analyzing inferential statistics for multiple regression analysis. When using multiple regression analysis, as the quantifiable predicator of bivariate correlations between the IVs and the DV, certain assumptions were considered for the multiple regression investigation to be valid. Each of these assumptions had individual characteristics which were tested out uniquely;
however, there were characteristics that crossed over from one assumption to the other. This increased the complexities of the quantitative investigation. Also, each of these assumptions was tested through SPSS Statistics to validate multiple regression.

**Normality Assumption Description**

Normality was the first assumption. According to Mertler and Vannatta (2002), there should be a normal distribution of data throughout the graph when data distribution occurred. Amount of data expressed in a graph can expose too small of a sample size through skewness. Transforming the variables to different functions can assist in the solution of this assumption Mertler & Vannatta, 2002). When examining the normality of the sample, data transformations may be used to make the data appear “more normal” through mathematical procedures such as square root transformations or inverse transformations; this process creates a normal distribution of variables (Mertler & Vannatta, 2001, p. 31). Data transformations increase accuracy statistically.

Transforming variables was not needed for this assumption.

**Homoscedasticity Assumption Description**

The second assumption, homoscedasticity, is similar to equality of variance, which is considered a random disturbance in variable relationships. Homoscedasticity is the opposite of heteroscedasticity. Heteroscedasticity is an error within the independent variable only, which can violate the homoscedasticity. Mertler and Vannatta (2002) express how the continuous variables are highly similar, thus requiring Levine’s test or explore the normality assumption to solve this issue. By exploring normality, reverts back to the first assumption.
Outlier Assumption Description

The third assumption, outliers, is the exceptional instances which can impact results; however, should be removed to not disrupt the soundness of the analysis. Mertler and Vannatta (2002) emphasize how outliers distort data and cause cases of extremity a scatter plot distribution. Reverse coding and centering allow for assistance in transformations for examining other assumptions, as well as, with interpretation of results (Mertler & Vannatta, 2002). Mertler and Vannatta (2002) also add that outliers should be noted in results but also excluded to not skew the generalizable outcomes.

Multicollinearity Assumption Description

The fourth assumption to address is: multicollinearity, which can create model instability, especially at variable related outcomes of approximately .4 to .5 (Mertler & Vannatta, 2002). Multicollinearity can be most problematic for researchers due to slight distinctions between variables which can cause an overlap in the multiple variables’ information involved (Mertler & Vannatta, 2002). Tolerance statistics can be used to inspect value ranges; however, a value range of zero indicates multicollinearity (Mertler & Vannatta, 2002). To look at each individual factor, variance inflation factor can be used to scrutinize value ranges of each predictor (Mertler & Vannatta, 2002). Combining variables can expunge the issue of multicollinearity; however, Cronbach’s alpha must be over .6 to ensure variable reliability.

Linearity Assumption Description

The fifth and final assumption is: linearity. Linearity suggests “a straight line relationship between two variables” (Mertler and Vannatta, 2002; p. 32). Pearson’s r is used for expressing linear relationships; however, they avoid expressing nonlinear
relationships among the variables (Mertler & Vannatta, 2001; Tabachnicvk & Fidell, 1996). Nonlinearity can derive from “prediction errors,” also known as, residuals, in multiple regression causing the results to vary from the predicted expectations (Mertler & Vannatta, 2002). Recoding variables assists in ensuring linearity (Mertler & Vannatta, 2002).

**Pre Analysis Assumption Test Process and Results**

In order to look at the deidentified data and decipher its results, I used the SPSS program. The SPSS program provided statistical results to support quantitative data reports and dissertations such as this one. Data was cleaned in order to use the information the data reveals appropriately. Once the data cleaned, it was assessed through assumptions tests such as the following tests: multicollinearity, linearity, normality, homoscedasticity, and outliers.

The first step in the assumptions test was to dummy code school level, which was originally set-up as two groups: elementary and secondary schools. This needed to be accomplished, because the secondary school had the influence. The secondary influence had less number of schools in comparison to the reference group. Elementary group was recoded as zero to represent the reference group. The elementary group is the reference group, in which there were more schools represented. The secondary schools category was recoded with dummy coding to one. Dummy coding uses “one degree of freedom...just like in analysis of variance” (ats.ucla.edu, nd.) and provides categorical codes of ones and zeros to use as predictor variables for each group membership (ats.ucla.edu, nd.). Dummy coding assists in predictor methods of
estimation of linear regression analysis (ats.ucla.edu, nd.). The transformation was then listed under the heading of secondary school.

After the transformation was complete, each and every assumption was examined. After examination of the variable, the equation was then modified from:

\[
Y_{(\text{instructional capacity})} = \beta_0 + \beta_1(\% \text{ white}) + \beta_2(\text{grade level}) + \beta_3(\text{free/reduced lunch}) + \beta_4(\text{math index score}) + \beta_5(\text{faculty trust in principals}) + \beta_6(\text{transformational leadership}) + \beta_7(\text{faculty trust in principal X transformational leadership})
\]

to a new equation without as many urban context variables due to high overlap. The high overlap created issues in the models; therefore, the new equation was altered and is as follows:

\[
Y_{(\text{instructional capacity})} = \beta_0 + \beta_1(\text{grade level}) + \beta_2(\text{free/reduced lunch}) + \beta_3(\text{faculty trust in principals}) + \beta_4(\text{transformational leadership}) + \beta_5(\text{faculty trust in principal X transformational leadership})
\]

**Normality Assumption Process for Pre Analysis**

The first and most important assumption, normality, showed the frequencies and a histogram. In the SPSS program, the features used were analyze, descriptive statistics, and frequencies. Once in frequencies, all six continuous variables were added: index score, FRL rate, percent white, FTPrin, TLB, and CTE. Other features used included the statistics tab to mark the central tendency of mean, skewness and kurtosis under distribution and standard deviation, minimum, and maximum under dispersion were marked before returning to the frequencies screen. The features used included the charts tab and normal histogram in the frequencies. At this point, the normality output was created in the SPSS program. The frequencies and the histogram break down each of the variables into pairs and exhibit the mean and standard deviation.
for each histogram. Specifically for normality frequencies, skewness and kurtosis needed to be examined. Skewness and kurtosis were ran using descriptive statistics in SPSS. The importance of skewness is < 2 and the importance of kurtosis is <7.

**Normality Assumption Results for Pre Analysis**

Normality assumption results were exhibited for each of the continuous variables. Since the skewness and the kurtosis fell into the appropriate range, there was no need for transformations of variables within this investigational pre analysis.

First variable examined was index score. The index score fell in the frequency distribution with the majority of the data falling in the middle. The frequency distribution also possessed two tails. There was a slight positive skew in the frequency distribution; however, the skewness was <2 at .591. The kurtosis of the normal distribution was at -.185 and is <7. The small sample size of 74 schools might account for the slight negative account in the kurtosis.

The second variable, FRL Rate, in the normality assumption results were exhibited in a negative skewed frequency distribution of the histogram. The negative skewness of the frequency distribution was the most of any of the other variables at -1.331 but stayed <2. It was expected for the frequency distribution to have a negative skew in the free and reduced lunch rate. This is more typically descriptive of schools in this urban district. It is understood that this was a known factor going into the investigation, and one of the reasons why this variable was chosen to examine and control for. The kurtosis of the data was <7 at 1.059 with the majority of the data fitting the frequency distribution. The frequency distribution possessed two tails. On the
positive tail of the FRL Rate frequency distribution, exposed the few outliers that are exhibited in the outlier assumption results later in this chapter.

The third variable was percent white, which was a school background variable. The frequency distribution was positively skewed. The skewness is at .763 and is <2. This positive skewness was expected, because there are not as many whites in urban schools as affluent schools. The frequency distribution possessed two tails. The kurtosis for percent white is -.114, which is <7. The majority of data fell under the frequency distribution. If the sample size were larger, there would have been more diversity in urban schools showing less percent white and explaining the negative kurtosis.

The fourth variable, FTPrin, was the independent variable of faculty trust in principals. The majority of data fell within the frequency distribution; however, there was a negative skew in the frequency distribution at -.806, which is <2. The kurtosis was 1.579, which is <7 but still the highest of all of the other continuous variables. This was due to the outliers and the gap in the results represented. A few outliers were exhibited with a gap in the data bars due to the small sample size of only 74 schools. Since there was such a small sample size, I did not want to exclude any outliers in this independent variable. The frequency distribution also had two tails.

The fifth variable in the normality assumption pre analysis was TLB, which are transformational leadership behaviors. TLB is the other independent variable in this investigation. The kurtosis is .874, which is <7. A majority of the data fell within the frequency distribution, which is negatively skewed. The skewness is <2 at -.729. There were few outliers existing in this frequency distribution to explain the negative skew;
however, the small sample size required them to be included in the investigational results.

The sixth continuous variable was CTE. CTE was collective teacher efficacy and was the dependent variable for this investigation. The kurtosis is -.540, which is <7. The majority of the data fell within the frequency distribution with a very slight negative skewness of -280, which was <2. The negative skewness was expressed in the table but not exhibited in the visual associated with the data. The visual of the frequency distribution was balanced. There was a gap in the data due to the small sample size.

**Homoscedasticity Assumption Process for Pre Analysis**

In the SPSS program, the features used were analyze, compare means, and on one-way ANOVA. All the continuous variables: index score, FRL Rate, Per.White, FTPrin, TLB, and CTE were added to the dependent list. Secondary schools, the categorical variable, were added to the factor portion. The options tab on the right of the one-way ANOVA screen and Homogeneity of variance test were marked. This process was to examine Levine’s F test. In order to examine the box plots, the features used were analyze, explore, and marked factor levels together under box plots.

**Homoscedasticity Assumption Results for Pre Analysis**

Homoscedasticity assumption was tested through the homogeneity of variances. The homogeneity of variances was tested through one-way ANOVA. In the continuous variables of: index score, FRL Rate, Per. White, FTPrin., TLB, and CTE, all possessed equality of variance except percent white. The percent white was significant difference in the variance according to the Levine Statistic and was recognized. All other
variables tested with homogeneity of variance, and there would be issues with this particular variable in the urban context because percent white was not going to be representative in all schools the same. There was no need for a transformation in percent white at a later time. The descriptives of this assumption test provides extra information about the investigation.

To fulfill the homoscedasticity assumption, box plots were created through the SPSS program. The box plots were developed for each of the continuous variables: index score, FRL Rate, Per. White, FTPrin., TLB, and CTE. The math index score box plots offer no outliers. The FRL Rate indicates three outliers. The three outliers were schools 3, 6, and 12. The percent white displayed five outliers. The five outliers were schools 3, 6, 12, 13, and 72. According to this box plot, there were no outliers in FTPrin. The TLB score showed one outlier, school 19. The final box plot exposed TLB score of two outliers. The two outliers were schools 19 and 66.

Homoscedasticity was the second assumption test. Homoscedasticity was similar to equality of variance. One way ANOVA for homoscedasticity assumptions was run with a violation found. The violations were in homogeneity of variance which was the variable of percent white. The percent white violations were outliers. There were outliers in the secondary deidentified data were found.

Outliers Assumption Process for Pre Analysis

The third assumption was outliers. In order to test for outliers in the SPSS program, the features used were analyze, then descriptive statistics, and all seven variables were added to the dependent list. Other features used were the statistics tab to the right of the explore screen, outliers and descriptives with a confidence interval for
mean of 95%. More features used were the plots tab at the right of the screen, spread vs
level with Levine Test, and the box plots which exhibited the outliers for each variable.

**Outliers Assumption Results for Pre Analysis**

The results for the outliers assumptions were demonstrated in the case
processing summary table and the descriptive table providing additional information
previously addressed in the other assumption tests results. The descriptives table
included the mean, the variance, the standard deviation both minimum and maximum,
the skewness and kurtosis of each variable. The values of the lowest and highest cases
were in a reasonable range of each of other.

There was a table called extreme values which exhibited the highest and lowest
school numbers and their associated values. The extreme values tables offered the
extreme of the ranges of scores and the list of schools with these extreme values in each
variable. The box plots exhibited the outliers for each variable. The index box plot
exhibited three outliers. The index outliers were schools 3, 6, and 12. FRL Rate box
plot exposed five outliers. The FRL Rate outliers were schools 3, 6, 12, 13, and 72.
There were no outliers exhibited in the Per. White box plot. FTPrin. box plots exposed
one outlier. The FTPrin. outlier was school 19. TLB box plot exposed two outliers.
The TLB outliers were schools 19 and 66. There were no outliers exhibited in the CTE
box plot.

The third assumption, outliers, exposed the outliers in the box plots in the SPSS
data program. The outliers were recognized. There were five outliers in FRL rate. FRL
rate outliers were schools 3, 6, 12, 13, and 72 in the de-identified data. These were the
schools with higher levels of free and reduced lunch rates. These FRL rate outliers
were recognized; however, the outliers were not transformed due to the small sample size. The FRL rate outliers were maintained. They exhibited the schools with typical urban school characteristics pertinent to this investigation.

The index score outliers were recognized in the box plots of the SPSS program. There were three index score outliers. They were schools 3, 6, and 12 in the de-identified data. These outliers exhibited that those schools either possessed higher or lower index scores in academic achievement. Index score outliers were important indicators of schools in need of additional resources to raise scores and need particular attention for improving index scores. Index score outliers which represented schools with exceptional scores could have been used as examples for others to follow and model their school actions after. Therefore, these outliers were recognized but not transformed to fit into the box plots.

The faculty trust in principal outlier was recognized from the box plots in the SPSS program. There was only one faculty trust in principal outlier, which was school 19. School 19 was also a recognized outlier for transformational leadership behaviors, along with school 66. Both faculty trust in principals and transformational leadership behaviors were independent variables used in this investigation. No transformations were used on faculty trust in principal and transformational leadership behaviors.

There were three variables in the outliers portion of the assumptions tests which possessed no visible outliers in the box plots from the SPSS program. These variables were: the dichotomous variable of secondary school, the continuous variables of percentage white, which was a school background variable, and collective teacher efficacy, which was the dependent variable for this investigation.
Multicollinearity Assumption Process for Pre Analysis

In the multicollinearity assumptions test, the fourth assumption test, the features used in SPSS were analyze, then correlate, and bivariate. On the bivariate correlations screen, all of the continuous variables were added: index score, FRL rate, per. White, FTPrin, and TLB variables except for the CTE variable. The CTE variable was the dependent variable in this investigation, so it was not manually added. Once completed, the correlations table developed in the SPSS program.

Multicollinearity Assumption Results for Pre Analysis

In the correlations table for the multicollinearity test, I examined the Pearson correlation for each of the five pertinent continuous variables. The index score had a very strong correlation to the FRL Rate score of -.806. This correlation meant that the higher the FRL Rate the lower the index score. The variance explained the index score and the FRL Rate was 64%. The index score had a moderate correlation to percent white of .646. The variance explained the index score and the percent white is 42%. The index score had a negligible to low correlation to FTPrin score at .275. The variance explained the index score and FTPrin is 7.5%. The FRL Rate had a very strong correlation to percent white of -.741. This meant that the higher the FRL Rate the lower the percent white. The variance explained the FRL Rate and the percent white was 55%. The FRL Rate had negligible to low correlation to FTPrin of -.265. This meant that the higher the FRL Rate the lower the FTPrin score. The variance explained was 7%. The percent white score had a negligible to low correlation to FTPrin of .244. The variance explained was 6%. The TLB score had a very strong correlation to FTPrin score of .728. The coefficient of determination was 53%.
Correlations were examined by using coefficients, which were examined through scatterplots. In the scatterplots, the continuous variables included all but one of the controlled variables, the independent variables, and the dependent variable. The excluded variable was secondary school, which was a dichotomous variable that was dummy coded. The included, continuous variables, which were highlighted, related were greater than .4 or .5. These highlighted variables made the model unstable. In order to prevent model instability, I removed each continuous variable from the model one at a time and placed it in the dependent variable portion and ran it.

**Linearity Assumption Process for Pre Analysis**

Linearity was the last assumption test. The features included graphs, legacy dialogs, scatter/dot plots, the simple scatter plot, and then placed the dependent variable, CTE score, in the Y Axis slot. Next, the first continuous variable in the X Axis was added to run the scatterplot. Each continuous variable was added individually in conjunction to the dependent variable to examine the results. The purpose was to exhibit a linear relationship. The first scatter plot was CTE with the index score exhibited a positive linear relationship. The CTE/index score graph explains that as the index score increases the CTE increases. The $R^2$ Linear relationship is 10% between CTE and index score. The second scatter plot was CTE with the FRL Rate exhibited a negative linear relationship. The CTE/FRL Rate graph explains that as the FRL Rate increases the CTE decreases. The $R^2$ Linear relationship was 3% between CTE and FRL Rate. The third scatter plot was CTE and Per White exhibited a slightly positive linear relationship. The CTE/Per White graph explained that as the Per White increased the CTE increased. The $R^2$ Linear relationship is 5.5% between CTE and Per White.
The fourth scatter plot was CTE and FTPrin score exhibited a positive linear relationship. The CTE/FTPrin graph explained that as FTPrin increased CTE increased. The $R^2$ Linear relationship was 12.5% between CTE and FTPrin. The fifth scatter plot was CTE and TLB score exhibited a positive linear relationship. The CTE/TLB graph explained that as TLB increased, CTE increased. The spacing of the dots on the scatter plots demonstrated that the sample needed to be larger to fill in the empty space in the scatter plot graph. The $R^2$ Linear relationship was 18.4% between CTE and TLB score.

**Descriptive Statistics**

In chapter 4, this study provides a section on descriptive statistics. The descriptive statistics illustrate descriptions of the variance of the survey responses. Table 1 on variable descriptives was created for this section. The table indicates the mean of the variance including the minimum and maximum. The table also illustrates the standard deviation for each of the school background variables and the variables of interest. In order to develop this table in the SPSS program, the features used were analyze, descriptive statistics, so that the background variables and variables of interest were placed in variables box to develop the table.

After the table was developed, formatted, and placed in the study, the histograms for free and reduced lunch, 2013 math index score and the percent white were developed. The histograms offer a visual support to enhance the table representation. To build a histogram, the features used were analyze, descriptive statistics, and frequencies. Then, for each individual histogram (free and reduced lunch, 2013 math index score, and the percent white) the specific variable was added to the variable box to end up with three different histograms for the three different variables.
listed above. Features included charts and histograms for each of the three histograms were developed for chapter 4.

**Stepwise Multiple Regression Procedures**

Stepwise multiple regression was the chosen statistical analysis for this secondary inquiry. In following the inquiry set forth by the research questions, regression analysis was used to examine the statistical value of the predictors on the dependent variables (Mertler & Vannatta, 2002). The alpha level of .05 is standard in education research; however, the $p$ value of .10 is used in many statistical and educational journals in reporting of results (Cohen, 1992). Probability values of .10, .05, .01, .001 were reported in this study. Standardized coefficients were relied on for interpretation, but with a sample size of $N = 74$, including a $p$-value of .10 allowed for reporting of possible small and medium effect sizes (Cohen, 1992).

**Research Question 1**

As an extension of understanding the secondary dataset, Pearson’s correlation table was developed. Table 2 displays the correlations, or relationship strength between the variables or their level of significance within the relationship (Dela Cruz, 2011; Field, 2009). In order to create the correlations table, first analyze was selected. Next, under the heading of correlate, bivariate was selected. At that point, 2013 math index score, FRLRate, Per. White, Trust in Princ., and Transf. Ldr. variables were placed in the variable box. Once variables are in the variable box, then options box was selected. Pearson’s was checked in the main screen. In the options box, the features used were cross-product deviations and covariance for the table to be developed. Collective teacher efficacy, the dependent variable, was excluded in this table.
In order to run multiple regression analysis on the SPSS Program, the features included analyze, regression, and linear. In the linear regression box, selected CTE score 2015 for the dependent variable box. After that selection, FRLRate and secondary school were selected for step one of the stepwise multiple regression analysis. Once everything was selected for step one, the analysis was tested. The default method was not changed for the manual stepwise option. It would have manipulated the data differently. For more precision in the data extrapolation, the independent variables were individually tested in separate models rather than the automatic option of the forward stepwise multiple regression (See Table 3).

For research question 1, a scatterplot was created to illustrate the relationship between free and reduced lunch and 2013 math index score. In order to create this scatterplot, the features used were graphs, legacy dialogs, scatter/dot, simple scatterplot, and a new box appeared. Free and reduced lunch was placed in the Y Axis and 2013 math index score was placed in the X Axis for the new scatterplot to be developed. After the scatterplot was formed, a fit line to be added (See figure 9).

**Research Question 2**

In step two of the multiple regression analysis, the dependent variable of CTE score 2015 was left in place. FTPrin score 2015 was then added to the independent variables box. Again, the method was then left at the default to run the analysis. In this step, the effects of FTPrin 2015 on CTE score 2015 were targeted (See Table 4).

For research question 2, another scatterplot needed to be created to demonstrate the relationship between trust and collective teacher efficacy. For this scatterplot to be created, the features used were graphs, legacy dialogs, scatter/dot, simple scatterplot,
and in the new box, trust was placed in the Y Axis. Collective teacher efficacy was placed in the X Axis. When the scatterplot formed, a fit line was added to demonstrate trend (See figure 10).

**Research Question 3**

In step three of the multiple regression analysis, the dependent variable of CTE score 2015 was left in the slot. FTPrin score 2015 was the only variable removed, and then TLB score 2015 was added in the independent variable slot. The features included method of default and analysis. The purpose was to examine the effects of TLB score 2015 on CTE score 2015. Both FTPrin and TLB were not entered into the independent variable during the same model during steps two and three. This was due to the amount of overlap between the two variables when they were exhibiting their effects on CTE individually (See Table 5).

For research question 3, another scatterplot was created following the same instructions as the ones in the prior research questions. The Y Axis was transformational leadership behaviors and the X Axis was collective teacher efficacy. Again, a fit was added to demonstrate the trend of the relationship (See figure 11).

**Research Question 4**

To accomplish step four of the stepwise multiple regression analysis, first an interaction had to be created for FTP X TLB. The process for creating the interaction in the SPSS program was as follows. The features included were transform, compute variable; the target variable of FTPrin x TLB was recoded and added. To create this target variable, FTPrin was added to the numeric expression box, the asterisk for
multiplication purposes, and then, TLB score 2015 was added to the numeric expression box (See Table 6).

After the interaction was created and added to the variable options list, step four of the stepwise multiple regression analysis was initiated. The purpose of the interaction was to provide an additional independent effect of each independent variable and the combined effect of the variables of FTPrin and TLB for examination of the gathered effect. The features chosen were analyze, regression, linear, and checked to ensure variables were already present in the variable boxes from the last step of analysis. CTE score 2015 was placed in the dependent variable box. The second step was to add FTPrin to the independent variables and run the analysis. To run this analysis, the TLB score 2015 was left in the independent variables box, and remove FTPrin score 2015 back from the independent variables box. The final step involved removing TLB and recoding an interaction between FTP XTLB. The newly created interaction of FTPrin x TLB was added to the independent variables box. The feature used was multiple regression analysis. The purpose of this final step was to examine the recoded interaction effects of FTPrin X TLB conjointly on CTE (See Table 6).

Finally for research question 4, a scatterplot was created to display the relationship between the interaction of FTP X TLB and collective teacher efficacy. FTP X TLB was placed in the Y Axis and collective teacher efficacy was placed in the X Axis. Once the scatterplot was developed following the same instructions as in the prior research questions, a fit line was added to demonstrate the relationship trend (See figure 12).
High and Low Math Index Score Quartile Examples

In this section of chapter 4, a 3-dimensional scatterplot was created to illustrate the relationship between the 2013 math index and the variables of interest, which are trust and transformational leadership behaviors. In order to create this 3-D scatterplot, the features used were graphs, legacy dialogs, scatter/dot, and 3-D scatter plot. A new box appeared for 2013 math index score to be placed in the Y Axis, TLB in the X Axis, and FTPrin in the Z Axis. Since there were three variables, a 3-dimensional scatterplot was developed to exhibit a visual of the overlap (See figure 13).

Also in this section, table 7 was developed. This table presents details of the three school background variables: 2013 math index score, FRL Rate, Per. White. The mean, median, standard deviation, skewness, standard error of skewness, kurtosis, standard error of kurtosis, range, minimum, maximum, and percentiles were represented in table 7. The percentiles represented the quartiles of the three school background variables. In order to develop this table, analyze, descriptive statistics, and frequencies were selected features. Once the new box opened up the school background variables were added. Other features used were statistics, percentiles manually added, mean and median, standard deviation, minimum, maximum, range, and S.E. mean, skewness, and kurtosis for table 7 to be developed.

To support the breakdown of the quartiles of the 2013 math index score in relationship to the variables of interest: transformational leadership behaviors, trust, and collective efficacy, a bar chart of means was created with the highest relationship to the fourth quartile. The fourth quartile has the highest index score. In order to build the bar chart of means, the features used were analyze, frequencies, and recoded index
quartiles variable box. Transformational leadership behaviors, trust, and collective efficacy were placed in the variables box. Other features included were charts and box charts for development of the bar chart of means (See figure 14).

The next visual representation created was to test the correlation of collective teacher efficacy on the math index score. As with the other scatterplots created in research question 1 section, first graphs, legacy dialogs, and scatter/dot were the features selected. The 2013 index score was placed in the Y Axis and the collective teacher efficacy was placed in the X Axis. Finally, the correlation scatterplot was developed. (See figure 15).

After the correlation visual was developed, this study examined specific schools based on their unique characteristics. The schools were school #145 (low index score, high free and reduced lunch) and school #269 (high index score, high free and reduced lunch). Both schools were examined in a bar chart of means. In order to create the bar chart of means, the features were analyze, descriptive statistics, and frequencies. The recoded variable for #145 and the variables of interest: TLB, FTPrin, and CTE were placed in the variables box. Other features included charts, bar charts, and this process was repeated with school #269. Bar charts of means were developed to be exhibited in the study (See figure 16 & 17).

Another scatterplot to illustrate the correlational relationship between the interaction FTP X TLB with the index score was created. First, graphs, legacy dialogs, and scatter/dots, simple scatter were the features. 2013 index score was placed on the Y Axis. The interaction FTP X TLB was placed on the X Axis, and the graph was developed (See figure 18).
In order to examine the interaction FTP X TLB with the index score, a bar chart of means was created. In order to create it, first analyze, descriptive statistics, and frequencies were selected features. The recoded interaction and the recoded index score quartiles were placed in the variables box. Charts tab feature was used for the bar chart of means to be developed (See figure 19).

**Summary**

The research methods section is the pathway through this investigational process. The involvement of secondary data alters the directional path from the traditional quantitative study; however, the independent and criterion variables are still addressed and analyzed utilizing SPSS software to illustrate the significance of the relationships. Even though quantitative studies are expressed by the passive observer, the approach to these subject variables has mainly been regarded in a qualitative paradigm. The expansion of this investigation adds breadth and scope to the existing literature through the quantitative paradigm. This study also assists practitioners in a better understanding of the valuation of their faculty’s perspectives and responsive action on leadership behaviors. The secondary dataset is further discussed in chapter 4 according to the targeted areas relevant to the research questions in this study.
Chapter 4: Results

Introduction

In chapter four, the results are expressed in verbal form and exhibited in table and graph form to demonstrate the correlations of the variables. The purpose for this inquiry is to examine the relationship between faculty trust in principals, transformational leadership behaviors, and their interaction on collective teacher efficacy. First, this chapter provides the descriptives of the variables. Next, the guiding question are exhibited, which is the overarching theme of this investigation. Then, each of the research questions are presented, beginning with research question 1 and ending with research question 4. After each research question is stated, a written description and a table and or figure exhibiting the results from this stepwise multiple regression analysis are presented.

Data Analyses

This study uses descriptive statistics to better understand the data before the main analysis. Descriptive statistics include frequency distributions, which describe the nature of the variance across participants’ responses. The descriptive statistics tables exhibit measures of central tendency and distribution through the mean responses, the minimum responses, the maximum responses, the standard deviations, and the kurtosis and skewness measurements. Table 1 provides estimates of these measures. As seen in Table 1, the minimum, the maximum, the mean, and the standard deviations are represented for each of variables, both dichotomous and continuous. The interaction was excluded from Table 1. Of note, for free and reduced priced lunch percentages, the maximum is over 100 percent. This is due to weighted formulas in Oklahoma State
Department calculations for equitable financial funding for urban and affluent schools. The kurtosis and skewness measurements aid in the assessment of the assumptions of the multiple regression statistical models. For this sample of N=74 schools in a large urban district, as seen in Table 1, 31 percent are at the secondary level. The math performance index score from 2013 represents a composite scale of point values assigned to the number of each student in the school scoring limited knowledge, proficient or advanced on their state test. Math index scores range up to 120 and are used to assign letter grades to schools. For instance, an A school has a performance index of over 90. However, the final grades assigned to schools, not just a subject area, like math, have other factors included beyond this study. For the schools in this study, the average math index score is about 62, which on the state system would equate to about a D letter grade. Of the schools with the highest math index scores, their school letter grades ranged between a B and C letter grade. There has been research which has critiqued this letter grading system (Adams, 2013). These schools have on average 87 percent of students who receive free and reduced priced lunch with about 29 percent of students who are white. For the variables of interest, faculty trust in principal, transformational leadership and collective teacher efficacy ranged between means of 4.52 to 4.71, which is on a Likert scale from 1 to 6.
Table 1. Variable Descriptives

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Schools</td>
<td>0.00</td>
<td>1.00</td>
<td>0.31</td>
<td>0.47</td>
</tr>
<tr>
<td>Math Performance Index 2013</td>
<td>31.00</td>
<td>101.00</td>
<td>61.73</td>
<td>16.70</td>
</tr>
<tr>
<td>Free/Reduced Lunch Rate</td>
<td>16.60</td>
<td>118.60</td>
<td>86.86</td>
<td>23.27</td>
</tr>
<tr>
<td>Percent White</td>
<td>2.30</td>
<td>76.20</td>
<td>28.53</td>
<td>17.33</td>
</tr>
<tr>
<td>Faculty Trust in Principal 2015</td>
<td>1.80</td>
<td>5.60</td>
<td>4.52</td>
<td>0.71</td>
</tr>
<tr>
<td>Transformational Leadership 2015</td>
<td>2.80</td>
<td>5.80</td>
<td>4.71</td>
<td>0.58</td>
</tr>
<tr>
<td>Collective Teacher Efficacy 2015</td>
<td>3.50</td>
<td>5.50</td>
<td>4.53</td>
<td>0.43</td>
</tr>
</tbody>
</table>

N = 74

The histograms for free and reduced lunch, math index scores and percent white demonstrate the distributions around the means presented about in the descriptives. Free and reduced priced lunch is negatively skewed with a majority of schools with higher percentages of students served (see Figure 6). However, there are still groups of schools on both high and low ends of the distribution. Interestingly, for the math index score, the distribution appears to have two modes—high scoring and low scoring schools (see Figure 7). The majority of schools in the district fall within this low scoring distribution. Similarly, most schools have a lower percentage of white students (see Figure 8). The sample of schools in this study have lower percentage of white students, higher percentages of students who receive free and reduced priced lunch and appear to be over represented in schools with lower math performance index scores. The correlation between these background variables is analyzed below.
Figure 6. This histogram displays the free and reduced lunch rates for this Midwestern urban district.
Figure 7. This histogram illustrates the 2013 index score used in this study.
Figure 8. This histogram demonstrates the percent white of the sample N=74 schools.

Guiding Question

How do both transformational leadership and faculty trust in principal work to improve instructional capacity [collective teacher efficacy] in urban schools?

Since the importance of transformational leadership behaviors and faculty trust in principal independently influence collective teacher efficacy, the guiding question of this study is to examine the overall effects of the combination of faculty trust in principals with transformational leadership behaviors to induce a greater impact on the collective teacher efficacy. Collective teacher efficacy has mediating effects on student
achievement (Bandura, 1986; Ross & Gray, 2006). Ross and Gray (2006) suggest “Holding principals accountable may be defensible if a principal can be found to have an indirect influence on achievement by creating the organizational conditions through which improved teacher and learning occurs” (p. 799).

This investigation was applied to a secondary dataset with school level aggregated variables. In this aggregated file, the statistical values are based on cases with no missing values for the dependent variable or any of the factors used in this investigation. Any defined missing values are treated as missing in the missing value handling of this dataset. Background variables were recoded as seen above in the methods section and descriptive table. Multiple regression, the main analysis, requires the testing of assumptions. In each of the assumption tests, explanations for what was discovered and explained are included in the sections below. Finally, a discussion of the multiple regression steps used dissect the deidentified secondary data is presented.

Research Question 1

What is the descriptive relationship between context variables and faculty trust in principals and transformational leadership behaviors?

Research Question 2

To what extent does teacher perception of faculty trust in principal influence collective teacher efficacy while controlling for school background variables?

Research Question 3

To what extent does teacher perception of transformational leadership have an independent effect on instructional capacity as collective teacher efficacy while controlling for school background variables?
Research Question 4

To what extent does the interaction between teacher perception of transformational leadership and faculty trust in principal influence collective teacher efficacy while controlling for school background variables?

Findings for Research Question 1

What is the descriptive relationship between context variables and faculty trust in principals and transformational leadership behaviors?

This portion of the assumptions including correlations explains relationships of valuable variables to the practitioner. The straightforward relationship explanation is in an easy to understand format to implement at the practitioner level rather than just in scholarship. Pearson’s (r) product offers correlation coefficient, which can measure the relationship strength between variables (Dela Cruz, 2011; Field, 2009). The strength of the variable relationship demonstrates significance.

In the multicollinearity portion of this study, the largest overlap of variance was between FRL Rate, index score, and percent of white students. Multicollinearity can occur when moderate high intercorrelations happen with the independent variables in a regression analysis (Mertler & Vannatta, 2002). The high intercorrelations were discovered through the assumptions analysis. Since FRLRate was the most prevalent concern of these urban school context antecedents, it was used throughout the stepwise multiple regression to specifically examine the IV and DV in relationship to their confounding antecedents. This use of FRLRate rather than using all of the overlapping antecedents was to prevent model instability in the prediction equation (Mertler & Vannatta, 2002).
To examine this research question, this study relied on the multicollinearity assumption to explain the relationships. Table 2 displays the overlap between Index 2013, FRLRate, and Percent White as the school context variables in relationship to faculty trust in principal and transformational leadership behaviors. There is a large, negative relationship \((r = -.806)\) between free and reduced priced lunch and the state’s performance index as an accountability outcome. Because of the magnitude of this overlap, only free and reduced lunch was included in the regression models since it explained both the school’s state performance metric as well as percentage of non-White students.

As argued there is a moderate to large relationship between transformational leadership and trust \((r = .728)\), so these were included in separate models. When included together in the last model, an interaction term was used to account for this overlap.

**Table 2.** Relationships (Pearson Correlation) between School Context and Leadership Variables

<table>
<thead>
<tr>
<th></th>
<th>Index 2013</th>
<th>FRL Rate</th>
<th>Per White</th>
<th>Trust in Princ</th>
<th>Transf Ldr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index 2013</td>
<td>1</td>
<td>-.806**</td>
<td>.646**</td>
<td>.275*</td>
<td>.173</td>
</tr>
<tr>
<td>FRL Rate</td>
<td>-.806**</td>
<td>1</td>
<td>-.741**</td>
<td>-.265*</td>
<td>-.204</td>
</tr>
<tr>
<td>Per White</td>
<td>.646**</td>
<td>-.741**</td>
<td>1</td>
<td>.244*</td>
<td>.153</td>
</tr>
<tr>
<td>Trust in Princ</td>
<td>.275*</td>
<td>-.265*</td>
<td>.244*</td>
<td>1</td>
<td>.728**</td>
</tr>
<tr>
<td>Transf Ldr</td>
<td>.173</td>
<td>-.204</td>
<td>.153</td>
<td>.728**</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: * \(p < .05\), ** \(p < .01\), *** \(p < .001\)
School Background Variable Findings

In step 1 of the stepwise multiple regression analysis, just the school background variables were examined to look at the relationship of each on collective teacher efficacy. Step one in the forward stepwise multiple regression analysis was used to answer research question 2. In Model 1 with school background variables, both secondary schools ($\beta = -.208$, $p < .10$) and free and reduced price lunch rate ($\beta = -.210$, $p < .10$) had a negative effect on collective teacher efficacy (CTE) which explained 8% of variance (see Table 3). The beta compares the regression coefficients on the same scale, which indicates how much impact each variable has on collective teacher efficacy. The beta, or standardized regression coefficient, indicates about $1/5$ of the standard deviation change for both secondary schools and FRL in the dependent variable. The beta provides, according to Mertler and Vannatta (2002), “the total amount of prediction error, both positive and negative, is as small as possible, giving us the best mathematically achievable line through the set of points in a scatterplot” (p. 167). The $t$ test determines statistical significance or the $t$ value between samples (Mertler & Vannatta, 2002). The $t$ test for Model 1 is an intercept of 24.81, which displays that the intercept is significantly different from 0.

**Table 3. Results of Model 1 in Stepwise Multiple Regression on Collective Teacher Efficacy**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>24.81 ***</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>-.208 -1.81 ~</td>
</tr>
<tr>
<td>FRL Rate</td>
<td>-.210 -1.82 ~</td>
</tr>
<tr>
<td>$R^2$, Variance Explained</td>
<td>.076</td>
</tr>
</tbody>
</table>

Note: ~ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$
The relationship of all the school context variables are relevant to the urban district in which is being surveyed. The downward slope of the scatterplot in figure 9 demonstrates that the lower the free and reduced lunch rates, the higher the index scores. The highest free and reduced lunch rates had the lower index scores. Parents socioeconomic status influences student performance (Coleman, 1988) on this statewide assessment. The reason that the free and reduced lunch rate relates to the math index score is that parent socioeconomic status determines where and how students live, which can directly and indirectly influence the student success in school (Coleman, 1988; Dika & Singh, 2002, Sirin, 2005). This also exposes the strong connect between state accountability metrics and the student demographics of the school, which has been critique as a bias measure (Adams, 2013). According to the scatterplot below, there is about 65% of the variance explained between free and reduced lunch rates and the 2013 math index score. In the next research questions, this study looks at how faculty trust in principals and transformational leadership behaviors might moderate the relationship between free and reduced price lunch and collective teacher efficacy, which in turn would help schools increase their performance.
Figure 9. This scatterplot illustrates a decreasing linear pattern of the sample N=74 schools within the relationship between the school context variables of the index score and the free and reduced lunch rate.

Findings for Research Question 2

To what extent does teacher perception of faculty trust in principal influence collective teacher efficacy while controlling for school background variables?

According to the scatterplot (see Figure 10) for the relationship between faculty trust in principal and collective teacher efficacy without context variables, there is about 13% of variance explained. This demonstrates that there is a strong relationship
between trust and collective teacher efficacy. But, how might this relationship change if background variables are included?

Step two in the forward stepwise multiple regression analysis was used to answer research question 2. In Model 2 with school background and trust, there was a 10% increase in variance explained for CTE due to trust ($\beta = .327, p < .01$) which moderated the effect of free and reduced priced lunch found in the previous model (see Table 4). This 10% increase in variance explained leads to an overall 18% of variance explained of collective teacher efficacy due to the multiple independent variables relationships. The value of faculty trust in principals helps to reduce the influence of the economic disparities (Shankar-Brown, 2015) on the collective teacher efficacy. Secondary schools remains the significant ($\beta = -.208, p < .10$) while FRLRate ($\beta = -.123$) does not. The $t$ test for Model 2 intercept 9.62 ($p < .001$).
Figure 10. As the FTPrin increases, the CTE increases in the sample N=74 schools.

Table 4. Results of Model 2 in Stepwise Multiple Regression on Collective Teacher Efficacy

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
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</tr>
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<tr>
<td></td>
<td>( \beta )</td>
<td>( T )</td>
<td>( B )</td>
<td>( t )</td>
</tr>
<tr>
<td>Intercept</td>
<td>24.81</td>
<td>**</td>
<td>9.62</td>
<td>***</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>-.208</td>
<td>-1.81</td>
<td>~ ~</td>
<td>-1.90</td>
</tr>
<tr>
<td>FRL Rate</td>
<td>-.210</td>
<td>-1.82</td>
<td>~ ~</td>
<td>-.123</td>
</tr>
<tr>
<td>Trust in Prin</td>
<td>.327</td>
<td>.291</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>( r^2 ), Variance Explained</td>
<td>.076</td>
<td></td>
<td>.176</td>
<td></td>
</tr>
</tbody>
</table>

Note: ~ \( p < .10 \), * \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)
Findings for Research Question 3

To what extent does teacher perception of transformational leadership have an independent effect on instructional capacity as collective teacher efficacy while controlling for school background variables?

In a preliminary analysis, the direct relationship between transformational leadership and collective teacher efficacy was examined (see Figure 11). Before adding background variables, transformational leadership as a single variable explains that 18% of the variance in collective teacher efficacy.

In the full Model 3, trust was not included as in Model 2, but instead transformational leadership was included independently as the main predictor of interest along with the background variables (see Table 5). Similarly, transformational leadership (β = .417, p < .001) predicted CTE and moderated the previously found effects of free and reduced priced lunch. The variance explained is about 24% when transformational leadership behaviors and background variables are examined in relationship to collective teacher efficacy. This is an increase of about 6% over faculty trust in principals variable in Model 2. The secondary schools (β = -.224, p < .05) predicted collective teacher efficacy and FRLRate was no longer significant (β = -.127). The t test for Model 3 intercept is 7.58 (p < .001).
Figure 11. As the TLB increases, the CTE increases in the sample N=74 schools.

Table 5. Results of Model 3 in Stepwise Multiple Regression on Collective Teacher Efficacy

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( T )</td>
<td>( \beta )</td>
<td>( T )</td>
<td>( B )</td>
<td>( t )</td>
</tr>
<tr>
<td>Intercept</td>
<td>24.81</td>
<td>***</td>
<td>9.62</td>
<td>***</td>
<td>7.58</td>
<td>***</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>-.208</td>
<td>-1.81</td>
<td>-.208</td>
<td>-1.90</td>
<td>-.224</td>
<td>-2.14</td>
</tr>
<tr>
<td>FRL Rate</td>
<td>-.210</td>
<td>-1.82</td>
<td>-.123</td>
<td>-1.08</td>
<td>-.127</td>
<td>-1.18</td>
</tr>
<tr>
<td>Trust in Princ</td>
<td>.327</td>
<td>2.91</td>
<td>**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transf Ldr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.417</td>
<td>3.93</td>
</tr>
</tbody>
</table>
| \( r^2 \), Variance Explained | .076 | .176 | .243

Note: \( p < .10 \), * \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)
Findings for Research Question 4

To what extent does the interaction between teacher perception of transformational leadership and faculty trust in principal influence collective teacher efficacy while controlling for school background variables?

In a preliminary analysis, the direct relationship between the interaction between faculty trust in principal and transformational leadership on collective teacher efficacy was examined (see Figure 12). Before adding background variables, this interaction as a single variable explains 20% of variance.

In the full Model 4, trust was not included as in Model 2 nor transformational leadership as in Model 3, but instead, the created interaction of FTP X TLB was included as a combined effect as the main predictor of interest along with the background variables (see Table 6). Compared to Model 1, Model 4 had about 18% increase in variance explained for the interaction ($\beta = .442, p < .001$). The interaction between trust and transformational leadership explained the most variance and produced the largest independent effect on collective teacher efficacy, as well as, moderated the influence of free and reduced priced lunch. Also, ~8% increase when the interaction was applied rather than the singular effects of faculty trust in principals on collective teacher efficacy in Model 2 (see table 4). Approximately a 2% increase when the interaction was applied rather than the singular effects of transformational leadership behaviors on collective teacher efficacy in Model 4 (see table 6).
Figure 12. As the interaction between TLB and FTPrin increases, the CTE increases in the sample N=74 schools.
<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.24</td>
<td>.96</td>
<td>.76</td>
<td>.62</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>-.20</td>
<td>-.20</td>
<td>-.22</td>
<td>-.21</td>
</tr>
<tr>
<td>FRL Rate</td>
<td>-.21</td>
<td>-.12</td>
<td>-.13</td>
<td>-.12</td>
</tr>
<tr>
<td>Trust in Princ</td>
<td>.52</td>
<td>.91</td>
<td>.41</td>
<td>.41</td>
</tr>
<tr>
<td>Trust in Princ X Trans Lk</td>
<td>.41</td>
<td>.93</td>
<td>.42</td>
<td>.42</td>
</tr>
<tr>
<td>$r^2$, Variance Explained</td>
<td>.076</td>
<td>.176</td>
<td>.243</td>
<td>.258</td>
</tr>
</tbody>
</table>

Note: * p < .10, ** p < .01, *** p < .001
High and Low Math Index Score Quartile Examples

The purpose of this study is to better understand how these variables of interested increase instructional capacity as defined by teacher collective efficacy above. However, there is a unique relationship between these variables and the 2013 math index score. Table 2 above showed a small significant relationship between faculty trust in principal and math index score; however, no relationship between transformational leadership and math index scores. Interestingly, while most schools scored relatively high in both transformational leadership and faculty trust in principal, there is much variation across their index scores (see Figure 13). This relationship is investigated down to an individual school level in this section.

Figure 13. The 3-dimensional scatterplot illustrates the relationship between the math index scores and the variables of interest: TLB and FTPrin.
Further descriptive analyses were investigated to depict how trust (Model 2) and transformational leadership (Model 3) might be associated with math performance. The bar chart below displays the index score using four quartiles to show a visual representation of means of trust and transformational leadership for each (see Figure 14). The index scores were broken down into four sections, four quartiles: lowest thru 50.75, 50.751-59.50, 59.501-69.99, and 70.00 thru highest (see Table 7). The lowest index scores, of the bottom quartile in the sample N=74 schools, appears to have lower faculty trust and transformational leadership behaviors. The highest quartile of index scores appears to possess higher faculty trust in principals and transformational leadership behaviors. The left bar shows the increase of transformational leadership behaviors across the quartiles of the index scores. The transformational leadership behaviors visually appear to have a greater increase on the fourth quartile of the index scores. The middle bar shows faculty trust in principal by index quartile. The right bar exhibits the collective teacher efficacy on the index score. However slight; there was at least a gradual increase and correlational effect between collective teacher efficacy and the math index score ($r = .323, p <.01$; see Figure 15).
Table 7. Quartile Scores for the School Context Variables

<table>
<thead>
<tr>
<th></th>
<th>2013 Index Score</th>
<th>FRLRate</th>
<th>PerWhite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>61.73</td>
<td>86.86</td>
<td>28.53</td>
</tr>
<tr>
<td>Median</td>
<td>59.5</td>
<td>95.15</td>
<td>24.55</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>16.7</td>
<td>23.27</td>
<td>17.33</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.59</td>
<td>-1.33</td>
<td>0.76</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>0.28</td>
<td>0.28</td>
<td>0.28</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.19</td>
<td>1.06</td>
<td>-0.11</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>0.55</td>
<td>0.55</td>
<td>0.55</td>
</tr>
<tr>
<td>Range</td>
<td>70</td>
<td>102</td>
<td>73.9</td>
</tr>
<tr>
<td>Minimum</td>
<td>31</td>
<td>16.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Maximum</td>
<td>101</td>
<td>118.6</td>
<td>76.2</td>
</tr>
<tr>
<td>Percentiles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>50.751</td>
<td>76.575</td>
<td>15.925</td>
</tr>
<tr>
<td>50</td>
<td>59.501</td>
<td>95.15</td>
<td>24.55</td>
</tr>
<tr>
<td>75</td>
<td>70</td>
<td>103.725</td>
<td>42.175</td>
</tr>
</tbody>
</table>

Figure 14. This bar chart of means shows the four quartiles of the sample N=74 schools. The relationship between the TLB, FTPrin, and the CTE are the highest in relation to the 4th quartile. The 4th quartile has the highest index score.
The sample was narrowed to two outlier schools to look further into the association of the variables of interest in relation to the school context variables of math index score and free and reduced lunch rates. Two schools were examined from the de-identified dataset. School #269 was selected for the high math index score and the high free and reduced lunch rate characteristics. The letter grade given, by the state of Oklahoma Department of Education, to school #269 was a C letter grade. School #145 was the other school selected for the lowest math index score and the high free and reduced lunch rate characteristics. The letter grade assigned, by the state of Oklahoma Department of Education for school #145, was a F letter grade. These factors, of math index score and free and reduced lunch rates, are not the only factors in the letter grade formation.

Figure 15. Tested correlation of collective teacher efficacy on 2013 math index score.
In table 7, the bolded portion called percentiles shows the breakdown of the four quartile sections for each of the three school context variables. Table 7 provides the mean for each of the school variables. The mean for each was previously addressed earlier in chapter 4. The median of 59.5 for the 2013 math index score is represented with a F letter grade, which is reflective of school #145. The median for free and reduced lunch rate is high at 95.15, and the percent white is low at 24.55. This demonstrates how these two schools fix on the outer edges of the distribution with high free and reduced priced lunch and either a relatively low or high math index score.

In the de-identified dataset, the sample schools were labeled with numbers representative of each school in the sample N=74 schools. As an extension of the understanding of guiding question and the research questions, this study wanted to provide a unique perspective of school #269. School #269 possessed a relatively high index school and high free and reduced lunch rates with an above average rating of faculty trust in principals, transformational leadership behaviors and collective teacher efficacy. School #269 exhibited a range between 4.5 and 5.5 on the Likert scale for the three variables of interest. This example shows that the index score might be increased while moderating antecedents such as free and reduced lunch rates when FTPrin, TLB and CTE are present.
School #145 is another individual school from the sample of the secondary de-identified data file. School #145 shows relatively low index score with a relatively high free and reduced lunch rate. The school #145, compared to school #269 or the sample, had a lower than average faculty trust in principal rate, transformational leadership behaviors and collective teacher efficacy. School #145 still accounts for a range between 3.5 and 5.0 on the original Likert scale of one to six. The faculty trust in principals was the lowest variable of interest. Transformational leadership and collective teacher efficacy were at the same level of mean on school #145.
Figure 17. This bar chart of means is representative of school #145 (low index score, high free and reduced price lunch) in the secondary file of de-identified data.

The Interaction Effects

This bar chart of means provides the interaction on each of the four quartiles of data (see Figure 14). The increase in the interaction appears to show an increase in the math index score. The four quartiles are broken down into four sections: lowest thru 50.75, 50.751-59.50, 59.501-69.99, and 70.00 thru highest. The association of the main variables on the index score shows the nature of relationships between faculty trust in principals, transformational leadership behaviors and collective teacher efficacy on index scores. As each quartile increases from 1-4, it expresses an increase in the math
index score. With the slight drop-off quartile three, there is a possible correlational effect between the interaction of FTPrin X TLB and the math index score. This relationship was tested with the created interaction variable, which showed a small significant relationship between FTPrinc X TLB and math index score ($r = .259, p < .05$, see Figure 18).

**Figure 18.** The scatterplot illustrates the correlational relationship between the interaction (FTP X TLB) with the 2013 math index score

When thinking about the interaction of faculty trust in principals combined with transformational leadership behaviors, figure 19 exhibits the breakdown of the four quartiles (see table 7). The quartiles show the influence the interaction has on the 2013 math index score. As the interaction is applied and increased, the math index score increases.
Figure 19. This bar chart of means exhibits the relationship between the interaction (FTP X TLB) on the 2013 math index score. The math index score is broken down into four quartiles to show a comparative relationship.

Summary

Each model explained variance in collective teacher efficacy. First the school background variables were examined in Tables 1, 2, and 3. Variable descriptives were provided in Table 1. Pearson correlations were examined in Table 2. In Table 3, the urban school antecedents were narrowed down and placed in step 1 of the forward stepwise multiple regression analysis. Table 4 provided the independent variable of
faculty trust in principals in relationship to collective teacher efficacy while moderating the effects of the urban antecedents. Table 5 removed the independent variable of faculty trust in principals to solely examine the transformational leadership behaviors on collective teacher efficacy while moderating the effects of the urban antecedents. Finally, Table 6 demonstrated the interaction of faculty trust in principals combined with transformational leadership behaviors on collective teacher efficacy. To ensure there were no statistical issues, the independent variables of faculty trust in principals and transformational leadership behaviors were removed. As each model was tested, an increase in variance was explained. Each time a variable was added or changed; there was a larger account to explain the relationships to collective teacher efficacy.

Compared to model 1, model 4 had ~18% increase in variance explained for the interaction ($\beta = .442, p < .001$). The interaction between trust and transformational leadership explained the most variance and had the largest independent effect on CTE as well as moderated the influence of free and reduced priced lunch. The subsequent descriptive investigation of these variables of interest on the math index scores show how these relationships might be associated with achievement.
Chapter 5: Conclusions and Implications

The overall purpose of this inquiry is to show how faculty trust in principal, along with transformational leadership influence collective teacher efficacy and may moderates the effects economic disadvantages in urban schools. Chapter four provided the results in verbal and visual format. Chapter five summarizes the purpose of this study, and presents the conclusions and implications drawn from the research findings. Chapter five provides the guiding question and the four research questions divided up into sections with a discussion for each section. Implications for this study are included, as well as, possibilities for future research related to this topic and conclusions.

Since this study examined the extent to which trust, transformational leadership and the interaction between them relates to collective teacher efficacy, then support is provided to for section to explain these connections. Even though each variable had a significant influence on CTE and lessened the effects of the urban school background variables, the interaction between FTPrin X TLB had the greatest effect on CTE while lessening the effects of the urban school background variables. With much debate over urban school funding, urban school improvement, and accountability (Adams, 2013), the results from this study asserts that effective leadership might be a viable factor in building collective teacher efficacy.

Urban school communities lack many of the amenities, such as community organizations, businesses, and health agencies (Bryk & Schneider, 2002), which affluent counterparts have readily available. Trust is a crucial influence on the improvement of urban schools and communities. When paired together, faculty trust in
principals with transformational leadership creates the necessary interaction to influence collective teacher efficacy, thus, increasing instructional capacity.

The interaction, with its greater effect on collective teacher efficacy in urban schools, sets the stage, so that the teachers are more responsive to the genuine efforts of the transformational leadership. The teachers are very perceptive of false actions and behaviors posed on them by unauthentic leadership.

Transformational leadership behaviors present an altruistic approach to improving relationships with teachers individually and collectively. This authentic style of transformational leadership motivates teachers to increase their efficacy professionally. By transformational leaders being authentic in their actions and behaviors, they are fostering trust collectively among the faculty. This then encourages the faculty to increase their level of comfort in their profession. The higher level of comfort, through trust, leads to taking risks with students, promoted by transformational leadership, to improve the instructional capacity within the classroom (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014). These risk taking behaviors are contagious among the faculty and might eventually lead to a collective improvement in the educational culture of the school climate (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014).

Even with N=74 schools, the sample size is on a small scale in comparison of other urban school districts. There is information to be gleaned from examining the relationships of the unique circumstances surrounding this urban district. Researchers could begin to look at other schools from a similar standpoint. When schools are
examined by researchers, new strategies may present themselves to the scholars as opportunities for influential growth among the faculty and leaders.

Again the guiding question delves into this valuable information to show scholars and practitioners the importance of examining relationships between leaders and faculty. The relationships can lead to school benefits or consequences, depending on the type of leadership and extent of trust present.

The relationship of faculty trust in principals influences collective teacher efficacy. Bryk and Schneider (2002) express “that the microdynamics of trust entail a complex mix of individual motivations” (p. 15). Faculty trust in principals is one of the micro dynamics which influences teachers through motivation. These motivated teachers then individually and collectively might become highly efficacious teachers. Highly efficacious teachers, according to Bryk and Schneider (2002), “attach great importance for teachers is so exceedingly valued,” that the faculty trust in principals is imperative to individual and collective teacher efficacy.

**Guiding Question**

As previously stated in the earlier chapters of this study is the guiding question. It is as follows: How do both transformational leadership and faculty trust in principal work to improve instructional capacity [collective teacher efficacy] in urban schools?

The guiding question of this study indicated how the combined interaction of faculty trust in principals with transformational leadership behaviors creates a greater effect on collective teacher efficacy while lessening the effects of urban school background variables. Avolio and Gardner (2005) discuss leadership as shared participation in decision making to build trust and promote transparency and instill hope
and commitment among faculty. Since the interaction had a greater effect than the other individual variables of faculty trust in principals and transformational leadership behaviors on their own, then scholars and practitioners might use these implications to better understand the relationship dynamics of leaders and teachers in urban schools. Deal and Peterson (1999) express the valuation of relationships between leaders and faculty to improve educational conditions through “strong, positive, collaborative cultures [which] have powerful effects on many features of schools” (p. 7). The valuation of the relationships between leaders and faculty are a large portion of what the public might view as a healthy educational environment. We see from research question 4 findings that the interaction exhibits a greater effect on collective teacher efficacy while lessening the effects of urban school background variables; however, the guiding question focuses on how the interaction works to improve collective teacher efficacy. Deal and Peterson (1999) emphasize “One of the most significant roles of leaders (and of leadership) is the creation, encouragement, and refinement of the symbols and symbolic activity that give meaning to the organization” (p. 10). Since the culture of the faculty and the organization are necessary in fostering a collective teacher efficacy, leadership is the basis for fostering this atmosphere. By fostering authentic relationships, which empower teachers to take greater risks in their teaching (Adams & Forsyth, 2009; Coleman, 1990; Tschannen-Moran, 2014), transformational leaders create organizational opportunities to indirectly influence student success (Aas & Brandmo, 2016; Darling-Hammond, 1988; Leithwood, 1992; Leithwood et al., 1999; Leithwood, Louis, Anderson & Wahlstrom, 2004, Marks & Printy, 2003; Ross & Gray, 2006; Smith, Hoy, Sweetland, 2002).
Transformational leadership promotes self-awareness (Avolio & Gardner, 2005) which is the basis for self-efficacy. Self-efficacy can change one person (Bandura, 1993); however, collective teacher efficacy is needed so there is collective power. Transformational leaders can be the altruistic mediating factors (Avolio & Gardner, 2005) to foster the collective efficacious teaching environment. Since leadership is held accountable for student success, even though educational challenges exist, then transformational leadership facilitates the “culture [that] fosters school effectiveness and productivity” (Deal & Peterson, 1999; Levine & Lezotte, 1990; Newmann & Associates, 1996; Purkey & Smith, 1983; p. 7). Proactive leadership embraces and regards innovative ideas for integrating behaviors to foster positive interrelationships with teachers. Once these strategies are structured into the daily leadership behaviors, then change might occur in the interrelationships among teachers and students via collective teacher efficacy. Avolio and Gardner (2005) emphasize “…leaders energize followers by creating meaning and positively socially constructing reality for themselves and followers” (p.330). Collective teacher efficacy, in turn, influences the student success within the classroom. The improvement in student success might eventually alter and improve the culture and overall climate of the school and community environments (Bryk & Schneider, 2002). Future research could include following the effects of this established interaction of transformational leadership on the school and community cultures longitudinally.

**Transformational Leadership on Collective Teacher Efficacy**

Genuine transformational leadership encourages teachers individually and collectively to flourish professionally. Deal and Peterson (1999) express “…leaders
know that success flourishes only when people are committed, believe in the organization, and take pride in their work” (p. 11). Authentic leaders articulate the direction and the vision in which faculty should evolve to for a more unified effect on teacher efficacy. The collective efforts of teachers to improve their efficacy may assist them in forming friendships and lasting connections, which is transformational leadership modeling behavior. These lasting connections might constitute a school family in which high levels of comfort, kindness, and support reside; this is the basis of trust among the faculty (Adams, 2013).

Schools and leaders are ultimately searching for new strategies to increase student success. Increasing collective teacher efficacy is a step in that direction, but the question still begs on how transformational leadership can effect collective teacher efficacy while lessening the effects of urban school background variables. This combined interaction between faculty trust in principals and the transformational leadership behaviors being acted upon develops the authentic formula to create a greater influence on collective teacher efficacy than those components do individually. It is important for novice, as well as, experienced leaders to acknowledge and possibly implement this authentically based style of transformational leadership toward improving their interrelationships with faculty to produce higher collective teacher efficacy. In turn, impacting instructional capacity at the teacher level leads to increase student achievement.

The results of this guiding question emerged from this study through the statistical testing of multiple regression. The following research questions are also addressed through the forward stepwise multiple regression models. (see figures 2-5).
These forward stepwise multiple regression models were tested manually rather than using the automatic feature with all the variables placed in the program at once. This took place to examine the tested variables individually and jointly as an interaction. The variables of interest were: school background variables, faculty trust in principals, transformational leadership behaviors, and the interaction of FTP X TLB on collective teacher efficacy.

**Research Question 1**

The research question 1, as stated in this study, is as follows. What is the descriptive relationship between context variables and faculty trust in principals and transformational leadership behaviors?

**Descriptive Relationship of Variables**

The variables used in this study were examined in relationship to one another. Descriptive statistics provides the level of strength as the measure in relation to the other variable(s) examined (Mertler & Vannatta, 2002). The variable descriptives table displayed each of the four school background variables: secondary schools, 2013 math index score, free and reduced lunch rate, and percent white. The table also showed the variables of interest: faculty trust in principals, transformational leadership, and collective teacher efficacy, with the exception of the created interaction. The descriptive variables exhibit that this urban district has a high average of free and reduced lunch, which is ~87 percent. This high free and reduced lunch contrasts affluent schools and presents a difficulty barrier in improving school achievement due to the lack of parent socioeconomic status. With ~29 percent white among the student population and ~62 percent math index score, and the previously stated high free and
reduced lunch rate, urban teachers have more challenges toward collective teacher efficacy. Student success is closely related to collective teacher efficacy (Bandura, 1993; Goddard and Goddard, 2001; Goddard, Hoy, & Woolfolk, 2000) thus the need for increased collective teacher efficacy in urban districts. On the Likert scale from 1 to 6, faculty trust in principals, transformational leaders, and collective teacher efficacy scored in the upper half with a range of 4.52-4.71. These are relatively high marks given by the faculty respondents collectively; however, there is always room for improvement, when the math index score is only ~62 percent. These positive and negative associations were exposed to indicate the type of correlations existing between each of the variable relationships (Mertler & Vannatta, 2002).

Each of these histograms were provided to illustrate the frequency that the school background variables posed later, as a contradicting effect on the relationship of the variables of interest: trust and transformational leadership to collective teacher efficacy. The histograms indicate that the school background variables vary among schools, as does the variables of interest: trust and transformational leadership to collective teacher efficacy. The histogram for the frequency of free and reduced lunch indicates that most of urban schools have limited parental financial resources (Alspaugh, 1992; 1998; Sirin, 2005).

**School Background Variables Findings**

The school background variables, for this study, are expressive of some of the barriers urban schools encounter in contrast to affluent schools. This is expressed in step 1, Model 1 and Table 3. Step 1, Model 1, and Table 3 show as in most instances, parents in urban schools are highly reliant on faculty and leadership to engage and
convey school related information (Bryk & Schneider, 2003). The school background variables were involved in each step of the stepwise multiple regression analysis. Each model (Models 1-4) indicated the presence of the school background variables’ relationship with each of the variables of interest. Sirin (2005) discuss “With increased attention to contextual variables such as race/ethnicity, neighborhood characteristics, and students’ grade level, current research provides a wide range of information about the processes by which SES effects occur” (p. 418). The school background variables included free and reduced lunch rates, math index score, percent white, and secondary schools.

In chapter four, a histogram on free and reduced lunch was exhibited. Free and reduced lunch rates were one of the most prevalent urban antecedents (Sirin, 2005). Free and reduced lunch had a negative skewness. This was due to the high mean of ~87 percent in this Midwestern urban district. Free and reduced lunch rates ($\beta = -0.210, p < 0.10$) had a negative effect on collective teacher efficacy. Along with free and reduced lunch rate, secondary schools ($\beta = -0.208, p < 0.10$) explain the variance of 8%. The variance explained shows how much of an effect these school background variables have on collective teacher efficacy. In Table 3 and Model 1, the $t$ test intercept of 24.81 exhibits a significant difference from zero.

In this study, trust and leadership helped to lessen its effects of free and reduced lunch rates on collective teacher efficacy in urban schools. Free and reduced lunch rates and the school size tend to participate in a level of influence on student success (Alspaugh, 1998). Figure 9 provides a scatterplot which indicates 65% of variance is explained between free and reduced lunch rates and the 2013 math index score. With
student success based on the math index score on the state achievement tests, Alspaugh (1992, 1998) proceeds to add “as school size increased, there appeared to be an associated decline in achievement test scores” (p. 21). Literature supports Figure 9 in this decline. Free and reduced lunch rates are an urban barrier, in which faculty and leadership must attempt to lessen its effects. Scholars discuss how socioeconomic status has a significant effect on academic success (Bornstein & Bradley, 2003; Brooks-Gunn & Duncan, 1997; Coleman, 1988; McLoyd, 1998; Sirin, 2005).

Secondary schools was another school background variable discussed for this study. It was considered as the grade level variable. Grade level varies the effects on socioeconomic status and student success (Duncan, Brooks-Gun & Klebenov, 1994; Lerner, 1991; Sirin, 2005). Secondary schools, as a dichotomous variable, was just one of the school background variables prevalent in each of regression models. All of the variables exhibited overlap, as seen in Table 2, which was evident through the descriptives portion of chapter four. Free and reduced lunch rates, 2013 math index score, percent white, and secondary schools were the school background variables which impeded school success (Sirin, 2005). Sirin (2005) discusses affluent versus urban school issues from the U.S. Department of Education (2000) expresses that urban students were consistently significantly “disadvantaged” when compared to their affluent counterparts.

Even though the school background variables are examined independently, there is much crossover between the free and reduced lunch rates, the academic achievement, the race and ethnicity background, specified grade level and the school district locale which links each other directly to the other variables (Brooks-Gunn & Duncan, 1997;
Bronfenbrenner & Morris, 1998; Eccles, Lord, & Midgley, 1991; Lerner, 1991, Sirin, 2005). The academic achievement variable for this study was the 2013 math index score. The relationship between free and reduced lunch and academic achievement was negative ($r = .806$). The math index score, which is determined by state assessment, is another school background variable. Researchers have shown that transition from elementary to secondary grade levels in urban schools lessens student success as measured in the math index score for this study (Alspaugh, 1996).

Percentage of white students represented in the urban schools was another school background variable. Race and ethnicity issues effects the math index score and is an urban antecedent for faculty and leadership unravel. Sirin (2005) draws information from the U.S. Department of Education (2000), which states “on average, minority students lagged behind their White peers in terms of academic achievement” (p. 420).

The next sections will address faculty trust in principals, transformational leadership behaviors and the interaction of the two on collective teacher efficacy. In the next three questions, table 2 exhibited the moderate to large relationship between trust and the transformational leadership ($r = .728$). Since there was a moderate to large relationship, the variables of interest were placed in separate models. The interaction model follows at the last.

**Research Question 2**

To what extent does teacher perception of faculty trust in principal influence instructional capacity as collective teacher efficacy while controlling for school background variables?
Faculty Trust in Principals on Collective Teacher Efficacy

Research question 2 findings are displayed in Step 2, Model 2, Table 3, and Figure 10. Figure 10 scatterplot illustrates the relationship between faculty trust in principal influences collective teacher efficacy (Goddard, Hoy, Woolfolk Hoy, 2000), without the school background variables is ~13% of variance explained. This variance explained illustrates a strong relationship between trust and collective efficacy. In Model 2 and Table 3, there was a 10% increase in the variance explained with faculty trust in principals and the school background variables on collective teacher efficacy. The 10% of variance explained added to the 8% of variance explained from the school background variables led to a total of 18% of collective teacher efficacy. Faculty trust (β = .327, p < .01) moderates the effects of free and reduced lunch rates on collective teacher efficacy. This relationship might relate to other facets of student success. Existing literature implies that faculty trust in principals is linked either directly or indirectly to student success (Chughtai & Buckley, 2009; Forsyth & Adams, 2014; Handford & Leithwood, 2013; Notman & Henry, 2011; Salfi, 2011; Tschannen-Moran, 2014; Tschannen-Moran & Gareis, 2015; Zeinabadi, 2014), thus increasing the importance of positively influencing collective teacher efficacy now more than ever.

Faculty trust in principals requires leadership to foster collective teacher efficacy through transparency, openness, and genuine altruism (Tschannen-Moran & Gareis, 2015). Faculty trust lessens the effects of the school background variables while attempting positively influence collective teacher efficacy. Secondary schools remained significant (β = -.208, p < .10) while free and reduced lunch rates (β = -.123) did not. The t test for Model 2 and Table 3 intercept was 9.62 (p < .001). Faculty trust in principals is
measured in the Omnibus Scale portion of the faculty survey. The data is from a secondary dataset and has been proven valid and reliable (OCEP, 2015). The secondary dataset used for this study is cross-sectional. The trust based questions were embedded among other related trust component questions (OCEP, 2015). Even though the data derived from this urban district is not generalizable, there are facets important to scholars and practitioners that might promote leadership reflection of their own leadership behaviors. Tschannen-Moran and Gareis (2015) express “When principals, teachers, students and parents trust each other and work cooperatively, a climate of success is more likely” (p. 68). The cooperation might be the result of trust.

Trust has long been connected to collective teacher efficacy (Bryk & Schneider, 2002; Tschannen-Moran & Gareis, 2004; 2015). The reason trust is so important to collective teacher efficacy is that how faculty perceives the leadership might instill positive feelings or emotions which can influence individuals, as well as, collectively (Humphrey, Burch, & Adams, 2016; Menges & Kilduff, 2015). Other research avenues in relating faculty perceptions of principals could be researched from the Cognitive Appraisal Theory, which is a psychological theory that examines emotional responses to leadership behaviors individually and collectively (Humphrey, Burch, & Adams, 2016; Izard, 1991; Ortony, Clore, & Collins, 1988). Faculty trust in principals singles out a specific component of collective trust (Adams, 2013; Forsyth, Adams, & Hoy, 2011) to specifically focus on the relationship between faculty trust in principals and collective teacher efficacy. It was also extracted as to focus on the perspectives of the faculty toward their principal leadership and the transformational leadership behaviors and actions on collective teacher efficacy. By understanding how the influence of
leadership might alter the collective teacher efficacy, then scholars and practitioners might alter their direction on the role of the principal toward student success (Leithwood, Jantzi, & Steinbach, 1999; Ross & Gray, 2006).

**Research Question 3**

To what extent does teacher perception of transformational leadership have an independent effect on instructional capacity as collective teacher efficacy while controlling for school background variables?

**Transformational Leadership Behaviors on Collective Teacher Efficacy**

For research question 3, Model 3, Step 3, Table 5, and Figure 11 are representative of the supporting data. Researchers have focused much energy on the importance of leadership behaviors (Yukl, 1994; 1998; 2001; 2006). Transformational leadership behaviors are one of the primary types of leadership behavioral research (Bass, 1985). The questions are sectioned off under the heading of transformational leadership. The cross-sectional view of this secondary dataset has established validity and reliability (OCEP, 2015).

Transformational leadership inspires motivation in their followers (Khatri, 2005; Roeser, Arbreton, & Anderman, 1993). Table 5 indicates there is ~24% variance explained between transformational leadership and the school background variables of secondary schools and free and reduced lunch rates on collective teacher efficacy. Transformational leadership ($\beta = .417, p < .001$) on collective teacher efficacy (Ross & Gray, 2006), while moderating the previously found effects of free and reduced priced lunch. This scenario made free and reduced lunch no longer a significant factor ($\beta = - .127$) as did trust in Model 2 to free and reduced lunch rates ($\beta = -.123$). The $t$ test for
Model 3 intercept is 7.58 (p<.001). Secondary school effects decreased slightly from (β= -.208, p<.10) to (β= -.224, p< .05). Bass (1997) believes the most efficacious leaders are transformational. Transformational leadership (Model 3) poses a greater variance explained on collective teacher efficacy than faculty trust in principals (Model 2) poses with school background variables present ~6% difference in two (see Table 5). Figure 11 illustrates ~ 18% of variance explained of the relationship between transformational leadership behaviors and collective teacher efficacy without the school background variables present. There is a correlational effect as transformational leadership behaviors increase, then collective teacher efficacy increases exhibited through simple regression. The inspired motivation can improve the collective perspective which would be the basis of McClellan-Atkinson’s theory of human motivation (Momeni, 2009; Schneider, 1975). Motivation is the fuel for efficacy. Setting the goals, vision, and directions for faculty, leaders are using human motivation theories (Bandura, 1986; Ford, 1992; Leithwood et al, 2004; Locke, et al, 1988). When leaders are open and transparent with their goals and directions for faculty (Tschannen-Moran, 2014; Urick & Bowers, 2014, efficacy is fostered, which is based on Bandura’s (1986) beliefs.

**Research Question 4**

To what extent does the interaction between teacher perception of transformational leadership and faculty trust in principal influence instructional capacity as collective teacher efficacy while controlling for school background variables?

**Interaction on Collective Teacher Efficacy**
For research question 4, Model 4, Table 6, Step 4, and Figure 12 were representative of results in chapter 4. Step 4 of stepwise multiple regression analysis involved creating an interaction between trust and transformational leadership (FTP X TLB). The interaction of the two variables provides a multidimensional view on leadership behaviors and actions, which faculty respond to by building their teacher efficacy (Angelle, Nixon, Norton, & Niles, 2011). Model 4 indicated ~26% variance explained for interaction and school background variables on collective teacher efficacy. This ~26% variance explained is ~2% more than the ~24% variance explained for transformational leadership behaviors (Model 3) and ~8% variance explained for trust (Model 2). Model 4 indicated ~18% increase in variance explained for the interaction (β = .442, p < .001) on collective teacher efficacy more than just the school background variables (Model 1) with ~8% variance explained. The school background variables consisted of secondary schools (β = -.208, p < .10) and free and reduced price lunch rate (β = -.210, p < .10). If leaders can truly know from the faculty how their behaviors and actions are perceived to foster trust, then leaders might gauge what strategies should be implemented to witness the fostered trust effect based on their leadership behaviors. Transparency, collaboration, and fostering a caring environment are valuable traits in which transformational leadership possess that might improve instruction in a shared responsibility environment (Burns, 1978; Eagly, Johannesen-Schmidt, & Van Engen, 2003; Hanson, 2010; Kouzes & Posner, 1995). These leadership behaviors are transformational and authentic, which might produce a sustaining effect rather than a quick hype followed by a lull.
Faculty trust in principals and transformational leadership, as an interaction is a multidimensional leadership which encompasses trust and effective leadership behaviors. Avolio and Gardner (2005) relate authentic leadership to authentic relationship development with followers. Transformational leadership is a shared leadership, in which “teachers…[can] not rely solely on the principal” (Aas & Brandmo, 2016; Law et al., 2007). The multidimensional leadership maintains a shared leadership through shared goals and vision, two of the four I’s (individualized support, intellectual stimulation), modeled behaviors, and promoting high expectations to faculty (Aas & Brandmo, 2016; Leithwood et al. 1999). Effective leaders promote shared goals and visions foster collective bonds to create perceptions of shared participation among faculty (Sergiovanni, 1994). George (2003) emphasizes “we need leaders who lead with purpose, values, and integrity; leaders who build enduring organizations, motivate their employees…” (p. 9). It takes leaders with charisma to promote positive purpose and values to faculty. Multidimensional leaders influence with charismatic behaviors (Avolio & Gardner, 2005; Urick & Sprinkle, 2013). Forsyth, Adams, and Hoy (2011) emphasize Bass’s (1985) discussion on addressing charisma in connection to trust between transformational leaders and followers, because “the leader instills pride, faith, and respect, has a gift for seeing what is really important, and transmits a sense of mission which is effectively articulated” (p. 159). These behaviors are inspired and modeled by transformational leaders (Forsyth, Adams, & Hoy, 2011; Urick & Sprinkle, 2013), thus the multidimensional perspective of the interaction (FTP X TLB) leadership. This multidimensional leadership might foster collaboration in which faculty and leaders have openness to improvement, teacher efficacy, and mutual respect

**High and Low Math Index Score Quartile Examples**

The high and low score quartiles provided a more in depth perspective on the secondary dataset. Even though Table 2 indicated a slight significant relationship between trust and the 2013 math index score, Figure 13 provides a 3-dimensional scatterplot to illustrate the overlap of the relationships between trust and transformational leadership behaviors and the 2013 math index score. There is much overlap of trust and transformational leadership on the academic success (Bandura, 1993; Angelle, Nixon, Norton, & Niles, 2011); however, there was a wide range of variation on the math index score.

The index score was placed into four quadrants or quartiles. The breakdown was as follows: lowest score to 50.75, 50.751 to 59.50, 59.501 to 69.99, and lastly 70.00 to the highest score. These quartiles are exhibited in Table 7.

Figure 14 exhibits the breakdown of the four quartiles of the 2013 math index scores and the relationships with the three variables of interest: transformational leadership behaviors, faculty trust in principals, and collective teacher efficacy. In Figure 14, the left bar exhibits the transformational leadership behaviors. In Figure 14, the middle bar represents faculty trust in principals. In Figure 14, the right bar
represents collective teacher efficacy. The TLB, FTPrin, and the CTE bars were based on a Likert scale of 1 to 6.

Figure 15 illustrated a correlation of collective teacher efficacy on 2013 math index score. Figure 15 supports research question 2 with 10% of variance explained between collective teacher efficacy on math index score without the school background variables present. This provided a simple regression perspective of the secondary dataset.

Implications for the Practitioner

The implications for the practitioner side of education are exhibited in this study through quartile figures and the tables. These results might have the potential to influence the relationships between principals and faculty. Leithwood et al, (2004) emphasize “Successful educational leaders develop their schools as effective organizations that support and sustain the performance of teachers as well as students” (p. 62). This study also had the potential to exhibit one facet of leadership’s relationship to faculty perceptions. The leadership and collective efficacy relationship connects to student success (Bandura, 1993; Goddard, 2001; 2002; Goddard, et al., 2002; Goddard & Goddard, 2001; Goddard et al., 2003; Ross et al., 2003; Ross & Gray, 2006; Smith, Hoy, & Sweetland, 2002). Hipp (1996) expresses “If a strong sense of efficacy motivates teachers to higher levels of competence and success, then an increased focus on the teacher attribute is critical to the improvement of student performance” (p. 3). Goddard and Goddard (2001) indicate “Where teachers tend to think highly of the collective capability of the faculty, they may sense an expectation for successful teaching and hence work to be successful themselves” (p. 815-816). The
correlational effects between the variables of interest: FTPrin, TLB, FTPrin X TLB interaction, and CTE are evident in chapter four. Novice, as well as, experienced leaders can glean a better understanding on the influence trust and transformational leadership behaviors which might influence collective teacher efficacy (Goddard, Hoy, & Wollfolk Hoy, 2000; Ross & Gray, 2006).

**Implications of the Study**

Even with the limitations of this study previously stated, the implications for this study and for the practitioner are pertinent to the educational environment. The educational environment should always be geared toward the improvement of student learning. Scholars have delved into the teacher efficacy influencing the importance of teaching ability in relation to developing student learning for twenty plus years (Armor, et al., 1976; Gibson & Dembo, 1984; Goddard and Goddard, 2001; Ross, 1992). It is widely known among scholars that school leadership positively influences school and student outcomes indirectly (Orphanos & Orr, 2014); hence, the necessity of high valuation that should be placed on how a multidimensional perspective of the interaction of trust and transformational leadership effectuates collective teacher efficacy. These school leadership characteristics which foster teacher efficacy and confidence are essential to maximizing this component of instructional capacity (Barnett & McCormick, 2004; Leithwood & Montgomery, 1982; Walker & Slear, 2011). Fullan (2005) expresses “Capacity building consists of developments that increase the collective power in the school in terms of new knowledge and competencies, increased motivation to engage in improvement actions, and additional resources (time, money, and access to expertise)” (p. 175) and are directly connected to
collective teacher efficacy improvements. These capacity building components might lessen the urban school antecedents and increase overall instructional capacity for student success through the component of collective teacher efficacy. An array of research exists on the leadership behaviors in relation to the entirety of instructional capacity (Dufour, 2002; Glickman, 2002; King, 2002; Walker & Slear, 2011; Whitaker, 2003). According to results in chapter four, faculty trust in principals, transformational leadership behaviors, and their interaction might influence collective teacher efficacy, which is the teacher component of instructional capacity.

Even with the wide array, this study went a step further by examining the combined effect of the multidimensional perspective of the interaction between faculty trust and transformational leadership in relationship to collective teacher efficacy. Urick (2016) states “future work should continue to examine interactions across leadership measures and to test why and how these tasks are simultaneous used in schools in order to continue to explain the extent of the principal’s role in school improvement” (p. 164). The interaction (FTP X TLB) leadership behaviors used in this study looks at the how and to what extent trust and transformational leadership relates to collective teacher efficacy. This combined leadership, the multidimensional leadership (FTP X TLB) for this study, attempts to examine leadership through more comprehensive descriptors of leadership facets (Leithwood, Jantzi, Earl, Watson, Levin, & Fullan, 2004, Urick, 2016). These leadership facets are operationalized as: openness, transparency, motivates, models, encourages teachers to extend beyond their ordinary comfort zones, and provides vision, direction, and goals, which relate back to the secondary study survey from OCEP (2015). Even though Leithwood et al (2004) are
examining the comprehensive tactics of strategic and distributive leadership as their styles of leadership valuable to school organizations, they do view transformational leadership as a critical strategy facet in producing effects on collective teacher efficacy.

Again, scholars are indicating the importance of the combined effects of leadership styles on school improvement. The combined interaction of leadership styles for this study: authentic leadership fosters the relationships with faculty for altruistic purposes. These genuine altruistic purposes help leaders to meet teachers where they are. By that it is meant their capabilities of experience and comfort as a teacher, which is how efficacious they are (Bandura, 1997; Ross & Gray, 2006). School leadership can foster teacher efficacy through communication (Blasé & Kirby, 2000; Walker & Slear, 2014; Whitaker, 2003), consideration (Blasé & Kirby, 2000; Hipp & Bredeson, 1995; Walker & Slear, 2014), discipline of students to prevent classroom disruptions (Hipp, 1996; O’Donnell & White, 2005; Walker & Slear, 2014), teacher empowerment (Edward, Green, & Lyons, 2002; Ross, 1995; Walker & Slear, 2014), flexibility (Blasé & Kirby, 2000; Marzano, Water, & McNulty, 2005; Walker & Slear, 2014), mediating influence with district administration (Ashton & Webb, 1986; Hoy & Woolfolk, 1993; Walker & Slear, 2014), inspiring collectively (Ashton & Webb, 1986; Hipp, 1996; Walker & Slear, 2014), modeled behavior expectations (Ebmeier, 2003; Hipp & Bredeson, 1995; Walker & Slear, 2014), instruction involvement (Ebmeier, 2003; Hipp & Bredeson, 1995; Walker & Slear, 2014), recognition (Hipp, 1996; Marzano, Waters, & McNulty, 2005; Walker & Slear, 2014), and finally situational awareness for responsive problem solving and prevention (Hipp, 1996; Marzano, Waters, & McNulty, 2005; Walker & Slear, 2014). Each of these leadership facets could be categorized
under the transformational leadership behaviors spectrum of the four I’s: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994) on collective teacher efficacy (Leithwood, Jantzi, & Steinbach, 1999) and/or trust related (Adams, 2013; Forsyth, Adams, & Hoy, 2011).

According to this study, the effects of increased collective teacher efficacy might strengthen the inclines of the math index score in urban schools. Bandura (1997) expresses that effective leaders can “unite the community for common cause” (p. 501). This collective strengthening could even lead to other possible school and community improvements. This study’s findings indicate that each of these variables of interest have a significant relationship on collective teacher efficacy, and even though collective teacher efficacy does vary among the different urban schools within the district.

**Future Research Possibilities**

Since the establishment of authentic transformational leadership effects collective teacher efficacy (Ross & Gray, 2006), future research could include examining different leadership preparation programs at the collegiate level. The study could even be examined in a longitudinal format by following the school leadership graduates into the practitioner role. The practitioner role exposure could offer details on how the leadership preparation skills are applied. Scholars could even go a step further to survey the faculty on their perceptions of the leadership behaviors as a qualitative study.

Some of the other possibilities for delving into related studies similar to this one would include using the teacher sense of efficacy scale (TSES) from Tschannen-Moran and Woolfolk Hoy (2001) to examine the individual efficacy of teachers. The data
collected could be used as a reflective instrument of the one used in this study. The
details from the comparison of the studies could provide further insight to scholars and
practitioners of the teachers’ perceptions of authentic principal behaviors (Ross & Gray,
2006).

As an extension of this study, OCEP scholars could focus on specific schools
with unique characteristics, within this large, urban district. One school, in particular, is
school #145 of the deidentified data. This school has a low math index score and high
free and reduced lunch rates. Also, school #145 holds a lower response rate on the
Likert scale for faculty trust in principals. Future research of interest could include
applying researched methods to increase faculty trust in principals on school #145. This
could be seen as a pilot study for impacting trust. The results of the applied methods
could improve faculty trust in principals and more specifically the math index score for
school #145. Another element of this study could include parent and student surveys
before the applied research methods and afterward. The growth measurements from
each of the surveys compiled could be compared to look at the community impact of
faculty trust in principals.

In addition to examining school #145 with relatively low math index score and
relatively high free and reduced lunch rates, scholars could examine school #269.
School #269 had relatively high math index score and relatively high free and reduced
lunch rates. There could even be a meta-analysis of a school from each math index
score quartile. Each of the four schools selected could be examined through their
survey results and characteristics. Further research on school #269 could even reveal
applied leadership behaviors, which could be examined more in-depth. The in-depth
research into #269 could reveal strategies, which could be applied to other schools like school #145. A comparative study of the two specified schools: #269 and #145 could give insight to leadership, faculty, and even student behaviors.

**Figure 20.** Future Research for Authentic Leadership in Practice

**Theory Moving Forward**

For this study, transformational leadership theory was used to establish the theoretical framework. Transformational leadership theory offers unique dynamics of a superior conception of its elaborated role (Bass, 1985; Bass & Avolio, 1994; Podsakoff,
It was discovered that many scholars used instructional leadership theory rather than the transformational leadership theory when examining instructional based variables of interest (Aas & Brandmo, 2016; Hallinger, 1982, 1990; Fullan, 2014). Conceptualization of instructional leadership, through examining principal behaviors with instruction, became known through Hallinger in the 1980’s (Aas & Brandmo, 2016; Hallinger, 1982; 1990; Fullan, 2014). Marks and Printy (2003) and Urick (2016) discuss instructional leadership as shared instructional leadership between the principal and the teachers. This shared instructional leadership is based on collaboration (Aas & Brandmo, 2016; Fullan, 2014; Marks & Printy, 2003), goals (Aas & Brandmo, 2016), and direction setting by the principal (Aas & Brandmo, 2016; Leithwood, Aitken, & Jantzi, 2001; Urick, 2016). Transformational leadership is considered more of a top-down method of direction, but instructional leadership is considered a better dissemination of leadership, which is more equally shared (Spillane, 2005; Urick, 2016). Since the principal is the instructional leader, the principal might engage with the teachers with their instructional practices (Aas & Brandmo, 2016; Coldren & Spillane, 2007; Mark & Printy, 2003; Robinson, Lloyd, & Rowe, 2008; Tschannen-Moran & Gareis, 2015) for the betterment of collective teacher efficacy, classroom strategies, and integrity of pedagogy delivery. This shared instructional leadership linked to these instruction practices creates a type of synergy aligned with maximizing instructional capacity (Marks & Printy, 2003; Urick, 2016). The synergy might create growth between the shared instructional leadership and capacity and shared influence between principals and teachers (Alderfer, 1969; Urick, 2016).
Summary

This study focused on the combined effects of transformational leadership and trust on collective teacher efficacy. The multidimensional perspectives of transformational leadership were based on transformational leadership behaviors and faculty trust in principal facets which provided theorized overlap of the operationalized perspectives. Each of these components effects collective teacher efficacy at different levels of significance. This study examined each of these components in a stepwise forward multiple regression. By analyzing the secondary dataset in this format, this study was able to reveal the increased relationship significance of the combined interaction of transformational leadership behaviors and faculty trust in principals to create a greater effect of authentic leadership.

The current study’s findings support previous research on the individual variables in relation to collective teacher efficacy (Adams, 2013, Forsyth, Adams, & Hoy, 2011); however, the current study’s findings also extend the research in multidimensional perspectives of transformational leadership behaviors through the interaction between the independent variables to form an interaction’s relationship to collective teacher efficacy. The findings of this study might exhibit the significance in the relationships between faculty trust in principal leadership and transformational leadership behaviors to collective teacher efficacy. Specifically, past literature supports the relationship between trust and student success and transformational leadership behaviors and student success.

The results created an interesting perspective of this secondary dataset on how the enhanced leadership skills of these multidimensional perspectives of the interaction
(FTP X TLB) leadership have a greater effect on teacher efficacy as a whole. The results confirm the emphasis of this study, in which the combined effects of trust and transformational leadership have a greater effect on collective teacher efficacy than when applied individually on the collective teacher efficacy. Overall, this study offered many different findings which could promote fostered opportunities by the OCEP in this large urban district. These enhanced leadership skills of authentic leadership might be used to mediate the urban antecedents that continue to hinder school success. Results of this study provide direction for both scholars and practitioners to enhance leadership behaviors to effectuate collective teacher efficacy.
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APPENDIX A

Normality Assumptions Tests
APPENDIX B

Homoscedasticity Assumptions Tests
APPENDIX C

Outliers Assumptions Tests

2013Index
FRLRate
FTPRINscore2015
TLBscore2015
Secondary Schools
**APPENDIX D**

**Multicollinearity Assumptions Tests**

<table>
<thead>
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<th>2013 Index</th>
<th>FRLRate</th>
<th>PerWhite</th>
<th>FTP</th>
<th>TLB</th>
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<td>0.194</td>
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</table>
APPENDIX E

Linearity Assumptions Tests
APPENDIX F

Institutional Review Board for the Protection of Human Subjects

Human Research Determination Review Outcome

Date: April 20, 2016

Principal Investigator: Neilinda Kay Stump

Study Title: Transformational Leadership Behaviors in Relationship to Instructional Capacity in an Urban School Setting

Review Date: 04/20/2016

I have reviewed your submission of the Human Research Determination worksheet for the above-referenced study. I have determined this research does not meet the criteria for human subjects research. The OU Principal Investigator will not intervene or interact with living individuals or collect individually identifiable, private information. Data for the study consist of de-identified, secondary data set with no potential for deductive re-identification of the original participants. Therefore, IRB approval is not necessary so you may proceed with your project.

If you have questions about this notification or using IRIS, contact the HRPP office at (405) 325-8110 or rbi@ou.edu. Thank you.

Cordially,

Fred Beard, Ph.D.
Vice Chair, Institutional Review Board
Dear Teacher,

The University of Oklahoma is working to create simplified, annual snapshots of the health of public schools. Snapshots will be made available to you and your colleagues to help provide direction in the improvement of teaching and learning conditions in your school as well as your school’s relationships with parents. Ultimately, we hope to build a system that will allow you annually to track the progress of your school on a number of health dimensions; this information can be used for identifying professional development needs, resource allocation, and other potential interventions you and your colleagues determine will make your students more successful.

We urge you to complete the online survey. Completion of the survey will take approximately 8 minutes. Your answers will be treated as confidential by the OU research team; no school or district personnel will see your responses. The survey questions measure your perceptions and attitudes about some school conditions. The school code will allow researchers to link all responses from a particular school together to create your school’s profile. If you choose to participate, please select the “yes” option below. The survey will then open up for you, and you may complete it electronically as directed. If you choose not to participate, please select “no,” and the researchers will be notified of
your intent. We know you are busy, and we sincerely appreciate your willingness to participate.

Patrick B. Forsyth
Adams
Senior Research Scientist
Research Scientist
The University of Oklahoma
University of Oklahoma

Curt M.

Informed Consent

As a teacher, you are being invited to participate in this research because your views and attitudes are very important. The purpose of the project is to collect information from principals, teachers, and administrators that can be used by teachers to improve teaching and learning conditions. If you agree to participate, please select the "yes" option below. The survey will open up, and you may complete it electronically as directed. The survey will take approximately 5 minutes. If you choose not to participate, please indicate that intention by choosing "no" below. The researchers will be notified of your intent.

Participation is voluntary. Your decision to participate will have no effect on any benefits to which you are entitled. There are no risks attached to your involvement nor will you be compensated. The records of this study will be kept confidential, and no one except the OU researchers will have access to the raw data. Codes are used to link teacher, principal, and parent responses to particular schools. Once we receive your completed or blank survey, all records of your participation will be destroyed; electronic surveys may be destroyed at the conclusion of the project. In published reports, there will be no information included that will make it possible to identify you as a participant.

If you have concerns or complaints about this research, we can be contacted by phone at 918-665-3870. If you have questions, concerns, or complaints about the research or your rights and wish to talk to someone other than the individuals on the research team, you may contact the University of Oklahoma Institutional Review Board at 405-325-8110 or ethics@ou.edu. Thank you for your time and consideration to participate in the project.

Please indicate below whether or not you choose to participate. If you choose to participate, select "yes." If you choose not to participate, select "no."
Transformational Leadership Behavior

Please indicate the extent to which you agree or disagree with the following statements about your principal.

The principal at this school...

Please indicate the extent to which you agree or disagree with the following statements about your principal.

1. Inspires others with his/her plans for the future
   - Please indicate the extent to which you agree or disagree with the following statements about your principal at this school...
   - Inspires others with his/her plans for the future

2. Provides a good model for me to follow
   - Please indicate the extent to which you agree or disagree with the following statements about your principal at this school...
   - Provides a good model for me to follow
Please indicate the extent to which you agree or disagree with the following statements about your principal.

<table>
<thead>
<tr>
<th>The principal at this school...</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The principal at this school...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provides a good model for me to follow</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Develops a team attitude and spirit among faculty/staff</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Insists on only the best performance</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Please indicate the extent to which you agree or disagree with the following statements about your principal.

- The principal at this school...
- Provides a good model for me to follow
- Develops a team attitude and spirit among faculty/staff
- Insists on only the best performance
Please indicate the extent to which you agree or disagree with the following statements about your principal.

The principal at this school...  
- Strongly Disagree  
- Disagree  
- Somewhat Disagree  
- Agree  
- Strongly Agree

Other:

5. Behaves in a manner thoughtful of my personal needs  
6. Asks questions that prompt me to think

Please indicate the extent to which you agree or disagree with the following statements about your principal. The principal at this school... 4. Insists on only the best performance  
- Strongly Disagree  
- Disagree  
- Somewhat Disagree  
- Agree  
- Strongly Agree

- Please indicate the extent to which you agree or disagree with the following statements about your principal. The principal at this school... 5. needs:  
- Strongly Disagree  
- Disagree  
- Somewhat Disagree  
- Agree  
- Strongly Agree

5. Behaves in a manner thoughtful of my personal needs  
6. Asks questions that prompt me to think
Please indicate the extent to which you agree or disagree with the following statements about your principal.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal at this school... 6. Asks questions that prompt me to think</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

- Please indicate the extent to which you agree or disagree with the following statements about your principal. The principal at this school... 7. Commends me when I do a better than average job |

Organizational Citizenship Behavior

Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.
1. Teachers help students on their own time.

2. Teachers voluntarily help new teachers.

3. Teachers volunteer to serve on new committees.

Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school:

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Somewhat Agree
- Agree
- Strongly Agree

1. Teachers help students on their own time.
2. Teachers voluntarily help new teachers.
3. Teachers volunteer to serve on new committees.
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

**Strongly Disagree** | **Disagree** | **Somewhat Disagree** | **Somewhat Agree** | **Agree** | **Strongly Agree**

1. Teachers are available to help you with your work.
2. Teachers support you in your academic success.
3. Teachers volunteer to serve on new committees.

Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

4. Teachers volunteer to sponsor extracurricular activities.
5. Teachers arrive to work and meetings on time.
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Teachers arrive to work and meetings on time. Strongly Disagree</td>
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</tr>
<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school. 6. Teachers take the initiative to introduce themselves to substitutes and assist them. Strongly Disagree</td>
<td></td>
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<tr>
<td>6. Teachers take the initiative to introduce themselves to substitutes and assist them. Disagree</td>
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<td>6. Teachers take the initiative to introduce themselves to substitutes and assist them. Somewhat Disagree</td>
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<tr>
<td>6. Teachers take the initiative to introduce themselves to substitutes and assist them. Agree</td>
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<tr>
<td>6. Teachers take the initiative to introduce themselves to substitutes and assist them. Strongly Agree</td>
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<tr>
<td>7. Teachers begin class promptly and use class time effectively. Strongly Disagree</td>
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<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school. 7. Teachers begin class promptly and use class time effectively. Disagree</td>
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<tr>
<td>7. Teachers begin class promptly and use class time effectively. Somewhat Disagree</td>
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<tr>
<td>7. Teachers begin class promptly and use class time effectively. Agree</td>
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</table>

241
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tr>
<td>time effectively.</td>
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<td>time effectively.</td>
<td>time effectively.</td>
<td>time effectively.</td>
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</tbody>
</table>

7. Teachers begin class promptly and use class time effectively. 

Strongly Disagree

Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

8. Teachers give colleagues advanced notice of changes in schedule or routine.

8. Teachers give colleagues advanced notice of changes in schedule or routine.

Strongly Disagree

9. Teacher committees in this school
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
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<td>work</td>
</tr>
</tbody>
</table>

9. Teacher committees in this school work productively. Strongly Disagree

○ Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

10. Teachers make innovative suggestions to improve the overall quality of our school.

Strongly Disagree

Teacher Workplace Isolation
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

1. I have people I can turn to at work.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

2. I have one or more co-workers available who I talk to about day-to-day problems at work.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>about day-to-day problems at work. Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. I have co-workers available whom I can depend on when I have a problem. 3. I have co-workers available whom I can depend on when I have a problem. Somewhat Agree

4. I have people supporting me at work. 4. I have people supporting me at work. Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

5. I am well integrated with the department/school where I work. Somewhat Agree

6. I am kept in the loop regarding school social events/ functions. Somewhat Agree

Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. I am part of the school network.</td>
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</tr>
<tr>
<td>8. District leaders know about my achievements.</td>
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</tbody>
</table>

Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
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<td>8. District leaders know about my achievements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about teachers at your school.

9. My principal communicates my achievements to district leaders.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

10. I am regularly part of my school's social events.
    - Strongly Disagree
    - Disagree
    - Somewhat Disagree
    - Somewhat Agree
    - Agree
    - Strongly Agree

TLE Evaluation
Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process. 1. The TLE describes effective teaching.</td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The TLE describes effective teaching.</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. The TLE describes effective teaching.</td>
<td>Somewhat Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The TLE describes effective teaching.</td>
<td>Somewhat Agree</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. The TLE describes effective teaching.</td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The TLE describes effective teaching.</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE)</td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The evaluation process takes more effort than the results are worth.</td>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The evaluation process takes more effort than the results are worth.</td>
<td>Somewhat Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The evaluation process takes more effort than the results are worth.</td>
<td>Somewhat Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The evaluation process takes more effort than the results are worth.</td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The evaluation process takes more effort than the results are worth.</td>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process:

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Somewhat Agree
- Agree
- Strongly Agree

1. The observation and evaluation process is clear.  
2. The evaluation process takes more effort than the results are worth.  
3. Face to face feedback was provided after each observation.  
4. Aligning my practices with the TLE rubric will help me improve my instruction.

Please indicate the extent to which you agree or disagree with each of the following:
Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader (TLE) observation and evaluation process.</td>
<td>5. The evaluation process helps me develop as a teacher.</td>
<td>6. I am confident the evaluation...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Agree
- Somewhat Agree
- Strongly Agree

1. The TLE rubric clearly defines standards for teaching effectiveness.
2. The TLE rubric fairly reflects my teaching effectiveness.
3. I am confident the evaluation process fairly reflects my teaching effectiveness.
4. I agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.
5. The TLE rubric clearly defines standards for teaching effectiveness.
6. The TLE rubric fairly reflects my teaching effectiveness.
7. The TLE rubric fairly reflects my teaching effectiveness.
Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

8. I am satisfied with the discussions of my performance with the principal or assistant principal who evaluated me.

9. I am satisfied with the feedback I received from the principal or assistant principal who evaluated me.

Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.
Please indicate the extent to which you agree or disagree with each of the following statements about the Teacher/Leader Effectiveness (TLE) observation and evaluation process.

Strongly Disagree Disagree Somewhat Agree Strongly Agree

Collective Teacher Efficacy

Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school.

Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school.

1. Teachers here never give up, even if a child doesn’t want to learn.
Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school.

1. Teachers are confident they can motivate students.
2. Teachers believe students value their work.
3. Teachers feel students understand their teaching.
4. Teachers are committed to students.
5. Teachers are able to get through difficult problems with students.
6. Teachers in the school are able to get through difficult problems with students.

Disagree

Somewhat Agree

Agree
Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
<tbody>
<tr>
<td>agree or get through to the most difficult students.</td>
<td>agree or get through to the most difficult students.</td>
<td>agree or get through to the most difficult students.</td>
<td>agree or get through to the most difficult students.</td>
</tr>
</tbody>
</table>

3. Teachers in the school are able to get through to the most difficult students.

4. Teachers here have the skills needed to produce meaningful student learning.
Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Meaningful student learning. Strongly Disagree</td>
<td></td>
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</tr>
<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school. 5. Teachers in this school believe that every child can learn. Disagree</td>
<td></td>
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</tr>
<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school. 5. Teachers in this school believe that every child can learn. Strongly Disagree</td>
<td></td>
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<tr>
<td>5. Teachers in this school believe that every child can learn. Somewhat Agree</td>
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<tr>
<td>5. Teachers in this school believe that every child can learn. Agree</td>
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<td></td>
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<tr>
<td>5. Teachers in this school believe that every child can learn. Strongly Agree</td>
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<tr>
<td>6. Teachers in this school have the skills to deal with student disciplinary problems. Disagree</td>
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<tr>
<td>6. Teachers in this school have the skills to deal with student disciplinary problems. Somewhat Agree</td>
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<tr>
<td>6. Teachers in this school have the skills to deal with student disciplinary problems. Agree</td>
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<tr>
<td>6. Teachers in this school have the skills to deal with student disciplinary problems. Strongly Agree</td>
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</table>
Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
<tbody>
<tr>
<td>Students in your school. 6. Teachers in this school have the skills to deal with student disciplinary problems. Strongly Disagree</td>
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</tbody>
</table>

- Please indicate the extent to which you agree or disagree with each of the following statements about teachers and students in your school. 7. Teachers here are able to meet the specific learning needs of each child. |

<table>
<thead>
<tr>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers here are able to meet the specific learning needs of each child. Somewhat Agree</td>
<td></td>
</tr>
</tbody>
</table>

7. Teachers here are able to meet the specific learning needs of each child. Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about students in your school.

1. These students come to school ready to learn.
2. Home life provides so many advantages that students here are bound to learn.

Please indicate the extent to which you agree or disagree with each of the following statements about students in your school.

Strongly Disagree  Disagree  Somewhat Disagree  Somewhat Agree  Agree  Strongly Agree

1. These students come to school ready to learn. Disagree
2. Home life provides so many advantages that students here are bound to learn. Disagree

1. These students come to school ready to learn. Somewhat Agree
2. Home life provides so many advantages that students here are bound to learn. Agree

1. These students come to school ready to learn. Strongly Agree
2. Home life provides so many advantages that students here are bound to learn. Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about students in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides so many advantages that students here are bound to learn.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about students in your school.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Students here are motivated to learn.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The opportunities in this community help ensure that these students will learn.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Students here are motivated to learn.

<table>
<thead>
<tr>
<th>3.</th>
<th>Students here are motivated to learn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>O</td>
<td>O</td>
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<tr>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

4. The opportunities in this community help ensure that these students will learn.

<table>
<thead>
<tr>
<th>4.</th>
<th>The opportunities in this community help ensure that these students will learn.</th>
</tr>
</thead>
<tbody>
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<td>O</td>
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<td>O</td>
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<td>O</td>
<td>O</td>
</tr>
<tr>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about students in your school.

Strongly 
Disagree

Disagree

Somewhat Disagree

Somewhat Agree

Agree

Strongly Agree

4. The opportunities in this community help ensure that these students will learn.

Strongly
Disagree

5. Students at this school don't have to worry about their safety.

Students at this school don't have to worry about their safety. 

Students at this school don't have to worry about their safety. 

Strongly
Disagree

6. Drug and alcohol abuse in the community don't affect student learning here.

Drug and alcohol abuse in the community don't affect student learning here. 

Drug and alcohol abuse in the community don't affect student learning here. 

Strongly
Disagree

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Please indicate the extent to which you agree or disagree with each of the following statements about students in your school.

Strongly Disagree  Disagree  Somewhat Disagree  Somewhat Agree  Agree  Strongly Agree
following statements about students in your school:

5. Drug and alcohol abuse in the community don’t affect student learning here.

CFG Performance

Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

Our CFG members...

Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

1. Are open and honest about their instructional weaknesses and mistakes.
Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our CFG members... 1. Are open and honest about their instructional weaknesses and mistakes</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
</tr>
<tr>
<td>2. Solve important issues during team meetings</td>
<td>2. Solve important issues during team meetings</td>
<td>2. Solve important issues during team meetings</td>
<td>2. Solve important issues during team meetings</td>
<td>2. Solve important issues during team meetings</td>
<td>2. Solve important issues during team meetings</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

<table>
<thead>
<tr>
<th>Our CFG members...</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Challenge one another in order to make informed decisions</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG). Our CFG members... 3. Disagree Challenge one another in order to make informed decisions</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>4. Are able to come to agreement without compromising individual members’ perspectives</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG). Our CFG members... 4. Disagree Are able to come to agreement without compromising individual members’ perspectives</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

<table>
<thead>
<tr>
<th>Our CFG members...</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Are able to come to agreement without compromising individual members’ perspectives.</td>
<td>Strongly Disagree</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG). Our CFG members... 5. End meetings with clear and specific understandings of actions to be taken. 6. Work as a group equitably to distribute the...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. End meetings with clear and specific understandings of actions to be taken.</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>6. Work as a group equitably to distribute the...</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG). Our CFG members... 5. End meetings with clear and specific understandings of actions to be taken. 6. Work as a group equitably to distribute the...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

<table>
<thead>
<tr>
<th>Our CFG members...</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work as a group equitably to distribute the workload</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>7. Willingly make sacrifices for the achievement of our goals</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about your Critical Friends Group (CFG).

Our CFG members...

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>achievement of our goals.</td>
<td>Strongly</td>
<td>Disagree</td>
<td>Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

Trust in District Administration

Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

$\bigcirc$ Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

1. The district administrator's align what they actually do with what they say they will do.

<table>
<thead>
<tr>
<th>Please</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

2. The

<table>
<thead>
<tr>
<th>Please</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

1. The district administrator values my expertise for school improvement.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree

2. The district administrator values my expertise for school improvement.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree

3. The district administrator values the expertise of teachers.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree

3. The district administrator values the expertise of teachers.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree

3. The district administrator values the expertise of teachers.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree
Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

4. The district administrator follows through on commitments.

5. The district administrator shows concern for the needs of my school.
Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

6. The district administrator(s) honor agreements.

7. The district administrator(s) are committed to the stated goals of the district.

Strongly Disagree  Somewhat Disagree  Agree  Strongly Agree

Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.
Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. The district administrator/s demonstrate knowledge of teaching and learning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. The district administrator/s have established a coherent strategic plan for the district.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each statement about the collective action of district administration.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>
10. The district administrator(s) have established a coherent strategic plan for the district. Strongly Disagree

10. The district administrator(s) take personal responsibility for their actions and decisions. Somewhat Disagree

10. The district administrator(s) take personal responsibility for their actions and decisions. Somewhat Agree

10. The district administrator(s) take personal responsibility for their actions and decisions. Strongly Agree

Faculty Trust in Parents

Please indicate the extent to which you agree or disagree with each of the following statements about your experiences with parents in your school.
Please indicate the extent to which you agree or disagree with each of the following statements about your experiences with parents in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

1. I trust the parents of students in this school.
2. I view parents of students in this school as reliable in their commitments.

Please indicate the extent to which you agree or disagree with each of the following statements about your experiences with parents in your school.
Please indicate the extent to which you agree or disagree with each of the following statements about your experiences with parents in your school.

| Strongly Disagree | Disagree | Somewhat Disagree | Somewhat Agree | Agree | Strongly Agree |

- 3. I can count on parental support.
- 4. I think that most parents of students in this school do a good job.

Please indicate the extent to which you agree or disagree with each of the following statements about your experiences with parents in your school.

- 3. I can count on parental support.
- 4. I think that most parents of students in this school do a good job.
Please indicate the extent to which you agree or disagree with each of the following statements about your experiences with parents in your school.

Strongly Disagree  Disagree  Somewhat Disagree  Somewhat Agree  Agree  Strongly Agree

5. I can believe what parents tell me.

Basic Information

Including this year, how many total years have you taught?


Including this year, how many years have you taught in your current school?


Are you Nationally Board Certified?

- Yes
- No

Gender:

- Male
- Female

Survey Powered By Qualtrics
Dear Teacher,

The University of Oklahoma is working to create simplified, annual snapshots of the health of public schools. Snapshots will be made available to you and your colleagues to help provide direction in the improvement of teaching and learning conditions in your school as well as your school’s relationships with parents. Ultimately, we hope to build a system that will allow you annually to track the progress of your school on a number of health dimensions; this information can be used for identifying professional development needs, resource allocation, and other potential interventions you and your colleagues determine will make your students more successful.

We urge you to complete the online survey. Completion of the survey will take approximately 8 minutes. Your answers will be treated as confidential by the OU research team; no school or district personnel will see your responses. The survey questions measure your perceptions and attitudes about some school conditions. The school code will allow researchers to link all responses from a particular school together to create your school’s profile. If you choose to participate, please select the “yes” option below. The survey will then open up for you, and you may complete it electronically as directed. If you choose not to participate, please select “no,” and the researchers will be notified of your intent. We know you are busy, and we sincerely appreciate your willingness to participate.

Patrick B. Forsyth
Senior Research Scientist
The University of Oklahoma
Oklahoma

Curt M. Adams
Senior Research Scientist
The University of Oklahoma

Informed Consent

As a teacher, you are being invited to participate in this research because your views and attitudes are very important. The purpose of the project is to collect information from parents, teachers, and administrators that can be used by you to improve teaching and learning conditions. If you agree to participate, please select the “yes” option below. The survey will open up, and you may complete it electronically as directed. The survey will take approximately 8 minutes. If you choose not to participate, please indicate that intention by choosing “no” below. The researchers will be notified of your intent.

Participation is voluntary. Your decision to participate will have no effect on any benefits to which you are entitled. There are no risks attached to your involvement, nor will you be compensated. The records of this study will be kept confidential, and no one except the OU researchers will have access to the raw data. Codes are used to link teacher, principal, and parent responses to particular schools. Once we receive your completed or blank survey, all records of your participation will be destroyed; electronic surveys will be destroyed at the conclusion of the project. In published reports, there will be no information included that will make it possible to identify you as a participant.
If you have concerns or complaints about this research, we can be contacted at 918-660-3870. If you have questions, concerns, or complaints about the research or about your rights and wish to talk to someone other than the individuals on the research team, you may contact the University of Oklahoma Institutional Review Board at (405)325-8110 or irb@ou.edu. Thank you for your time and consideration to participate in the project.

Please indicate below whether or not you choose to participate. If you choose to participate, select "yes." If you choose not to participate, select "no."

- Yes
- No

Omnibus Trust Scale

Please indicate the extent to which you agree or disagree with each of the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When teachers in this school tell you something, you can believe them.</td>
<td>1. When teachers in this school tell you something, you can believe them.</td>
<td>1. When teachers in this school tell you something, you can believe them.</td>
<td>1. When teachers in this school tell you something, you can believe them.</td>
<td>1. When teachers in this school tell you something, you can believe them.</td>
<td>1. When teachers in this school tell you something, you can believe them.</td>
</tr>
<tr>
<td>trust their students.</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>----------------------</td>
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<td>-------------------</td>
<td>---------------</td>
<td>-------</td>
</tr>
<tr>
<td>extent to which you agree or disagree with each of the following statements about your school.</td>
<td>this school trust their students.</td>
<td>this school trust their students.</td>
<td>this school trust their students.</td>
<td>this school trust their students.</td>
<td>this school trust their students.</td>
</tr>
<tr>
<td>2. Teachers in this school trust their students. Strongly Disagree</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your school.</td>
<td>3. Teachers in this school typically look out for each other. Strongly Disagree</td>
<td>3. Teachers in this school typically look out for each other. Somewhat Disagree</td>
<td>3. Teachers in this school typically look out for each other. Somewhat Agree</td>
<td>3. Teachers in this school typically look out for each other. Agree</td>
</tr>
<tr>
<td>3. Teachers in this school typically look out for each other.</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your school.</td>
<td>4. Teachers in this school can count on parental support. Strongly Disagree</td>
<td>4. Teachers in this school can count on parental support. Somewhat Disagree</td>
<td>4. Teachers in this school can count on parental support. Somewhat Agree</td>
<td>4. Teachers in this school can count on parental support. Agree</td>
</tr>
<tr>
<td>4. Teachers in this school can count on parental support.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

5. The teachers in this school have faith in the integrity of the principal.

6. Teachers in this school trust the principal.
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

7. The principal in this school typically acts in the best interests of teachers.

8. Students in this school care about each other.

Please indicate the extent to which you agree or disagree with each of the following statements about your school.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Even in difficult situations, teachers in this school can depend on each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Teachers in this school do their jobs well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Parents in this school are reliable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with each of the following statements about your school:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

in their commitments.

11. Parents in this school are reliable in their commitments. Strongly Disagree

○ Please indicate the extent to which you agree or disagree with each of the following statements about your school. 12. Teachers in this school can rely on the principal. Strongly Disagree

12. Teachers in this school can rely on the principal. Somewhat Agree

13. Teachers in this school have faith in the integrity of their colleagues. Strongly Agree

13. Teachers in this school have faith in the integrity of their colleagues. Agree

13. Teachers in this school have faith in the integrity of their colleagues. Strongly Agree
<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Teachers in this school have faith in the integrity of their colleagues.</td>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your school.</td>
<td>14. Students in this school can be counted on to do their work.</td>
<td>14. Students in this school can be counted on to do their work.</td>
<td>14. Students in this school can be counted on to do their work.</td>
<td>14. Students in this school can be counted on to do their work.</td>
</tr>
</tbody>
</table>

14. Students in this school can be counted on to do their work. Please indicate the extent to which you agree or disagree with each of the following statements about your school.

15. The principal in this school is competent in doing his or her job. Please indicate the extent to which you agree or disagree with each of the following statements about your school.
Please indicate the extent to which you agree or disagree with each of the following statements about your school.

16. The teachers in this school are open with each other.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

17. Teachers in this school trust the parents.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree

18. Teachers please
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Somewhat Agree
   - Agree
   - Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers here believe students are competent learners.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Please indicate the extent to which you agree or disagree with each of the following statements about your school. 19. The principal doesn't tell teachers what is really going on.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. The principal doesn't tell teachers what is really going on.

20. Teachers think that most of the parents do a good job.
Please indicate the extent to which you agree or disagree with each of the following statements about your school:

20. Teachers think that most of the parents do a good job.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree

21. Teachers can believe what parents tell them.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree

22. Students here tell the truth.
   - Strongly Disagree
   - Disagree
   - Somewhat Disagree
   - Agree
   - Somewhat Agree
   - Strongly Agree
Please indicate the extent to which you agree or disagree with each of the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please tell the truth.</td>
<td>23. Teachers in this school trust each other.</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Enabling School Structure

Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate the extent to which you agree or disagree that the following statements are</td>
<td>Administrati ve rules in this school enable authentic communication between teachers and</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>Administrati ve rules in this school enable authentic communication between teachers and</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
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<td></td>
<td>Administrati ve rules in this school enable authentic communication between teachers and</td>
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<tr>
<td></td>
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<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>Administrati ve rules in this school enable authentic communication between teachers and</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
</tbody>
</table>

287
Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>Administrator</td>
<td>Administrator</td>
<td>Administrator</td>
<td>Administrator</td>
<td>Administrator</td>
</tr>
<tr>
<td>s. Disagree</td>
<td>s. Somewhat Disagree</td>
<td>s. Somewhat Agree</td>
<td>s. Agree</td>
<td>s. Strongly Agree</td>
<td></td>
</tr>
</tbody>
</table>

Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

1. Administrative rules in this school enable authentic communication between teachers and administrators.
   - Strongly Disagree
   - Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

2. The administrative hierarchy of this school enables teachers to do their jobs.
   - Strongly Disagree

3. The administrative hierarchy promotes...
Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
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<tbody>
<tr>
<td>which you promote student achievement.</td>
<td>promote student achievement.</td>
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<td>promote student achievement.</td>
</tr>
<tr>
<td>the following statements</td>
<td>descriptions of the way your school is structured.</td>
<td>3. The administrative hierarchy promotes student achievement.</td>
<td>Strongly Disagree</td>
<td>Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.</td>
<td>4. Administrative rules help rather than hinder.</td>
</tr>
<tr>
<td>5. The administrative hierarchy of this school</td>
<td>5. The administrative hierarchy</td>
<td>5. The administrative hierarchy</td>
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289
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<tbody>
<tr>
<td>1. The mission of this school is clear and well-defined.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The organization of activities in this school is logical and efficient.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. The planning at all levels of this school is thoughtful and thorough.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. The administrative hierarchy of this school facilitates the mission of this school.</td>
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<td>7. The behavior of teachers and students in this school is consistent with the school mission.</td>
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<td>9. The procedures in this school are clearly explained and understood by all stakeholders.</td>
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<tr>
<td>10. The communication in this school is open and transparent.</td>
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<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

7. The administrative hierarchy of this school encourages innovation.

8. Administrative rules in this school are not used as substitutes for professional judgment.
Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional judgment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

9. Administrative rules in this school are guides to solutions rather than rigid procedures.
   - Disagree
   - Somewhat Disagree
   - Agree
   - Strongly Agree

10. In this school, the authority of the principal is used to support teachers.
    - Disagree
    - Somewhat Disagree
    - Agree
    - Strongly Agree
Please indicate the extent to which you agree or disagree that the following statements are descriptions of the way your school is structured.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
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<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. In this school the authority of the principal is used to support teachers.</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
</tbody>
</table>

Faculty Academic Emphasis

Please indicate below the extent with which you agree or disagree with the following statements about your school.

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<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When making important decisions, the school always focuses on what's best for student learning.</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
</tbody>
</table>

293
Please indicate below the extent with which you agree or disagree with the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

2. This school has high expectations for student achievement.

- This school has high expectations for student achievement. Strongly Disagree

3. Teachers in this school think it’s important that all students do well in their class.

- Teachers in this school think it’s important that all students do well in their class. Strongly Disagree

4. Teachers in this school...
Please indicate below the extent with which you agree or disagree with the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>this school encourage students to keep trying even when the work is challenging.</td>
<td>this school encourage students to keep trying even when the work is challenging.</td>
<td>this school encourage students to keep trying even when the work is challenging.</td>
<td>this school encourage students to keep trying even when the work is challenging.</td>
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</tr>
<tr>
<td>Teachers in this school encourage students to keep trying even when the work is challenging.</td>
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</tr>
<tr>
<td>Students at this school are expected to master the content they are working on before moving to new topics.</td>
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<td>Students at this school are expected to master the content they are working on before moving to new topics.</td>
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Please indicate below the extent with which you agree or disagree with the following statements about your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
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<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

6. Teachers in this school stress the importance of working hard to the students.

7. Teachers in this school let students know that making mistakes is OK as long as they are learning and improving.
Please indicate below the extent with which you agree or disagree with the following statements about your school.

Strongly Disagree  Disagree  Somewhat Disagree  Somewhat Agree  Agree  Strongly Agree

Please indicate below the extent with which you agree or disagree with the following statements about your school.

8. Teachers in this school place an emphasis on really understanding schoolwork, not just memorizing it.

Program Coherence

Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.

Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.

1. The programs in this school are implemented carefully.
Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
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<td></td>
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</tr>
</tbody>
</table>

1. The programs in this school are implemented carefully.
   - Strongly Disagree
   - Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.
   - Agree
   - Strongly Agree

2. Once we start a new program, we follow up to make sure that it is working.
   - Once we start a new program, we follow up to make sure that it is working.
   - Strongly Agree

3. The programs in this school
   - Please
   - Strongly Agree
Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>These programs are meaningful and effective for our students.</td>
<td></td>
<td></td>
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<tr>
<td>You can see real continuity from one program to another at this school.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. You can see real continuity from one program to another at this school.
Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.

5. Curriculum, instruction, and learning materials are well coordinated across the different grade levels at this school.
   - Strongly Agree
   - Agree
   - Somewhat Agree
   - Disagree
   - Somewhat Disagree
   - Strongly Disagree

6. There is consistency in curriculum, instruction, and learning materials among teachers in the same grade level at this school.
   - Strongly Agree
   - Agree
   - Somewhat Agree
   - Disagree
   - Somewhat Disagree
   - Strongly Disagree
Please indicate the extent to which you agree or disagree with each statement about the programs and curriculum in your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>and the same grade level in your school.</td>
<td>at this school.</td>
<td>at this school.</td>
<td>at this school.</td>
<td>at this school.</td>
<td>at this school.</td>
</tr>
<tr>
<td>There is consistency in curriculum, instruction, and learning materials among teachers in the same grade level at this school.</td>
<td>Strongly Disagree</td>
<td>Strongly Disagree</td>
<td>Strongly Disagree</td>
<td>Strongly Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

Principal Support of Student Psychological Needs

Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate the extent to which you agree or disagree with the following statements about the principal at the school.</td>
<td>1. My principal consults with me about the social adjustment of individual students.</td>
<td>1. My principal consults with me about the social adjustment of individual students.</td>
<td>1. My principal consults with me about the social adjustment of individual students.</td>
<td>1. My principal consults with me about the social adjustment of individual students.</td>
<td>1. My principal consults with me about the social adjustment of individual students.</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My principal consults with me about the social adjustment of individual students.</td>
<td>Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My principal asks me about how I make course content relevant.</td>
<td>2. My principal asks me about how I make course content relevant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My principal wants to know how I convey realistic but high expectations to learners.</td>
<td>3. My principal wants to know how I convey realistic but high expectations to learners.</td>
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<td></td>
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</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>your school.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

3. My principal wants to know how I convey realistic but high expectations to learners. Strongly Disagree
Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

4. My principal wants to know how I make my class personally exciting to learners. Disagree

4. My principal wants to know how I make my class personally exciting to learners. Somewhat Disagree

4. My principal wants to know how I make my class personally exciting to learners. Agree

4. My principal wants to know how I make my class personally exciting to learners. Strongly Agree

5. My principal wants to know what steps I take to motivate those learners who appear

5. My principal wants to know what steps I take to motivate those learners. Disagree

5. My principal wants to know what steps I take to motivate those learners. Somewhat Disagree

5. My principal wants to know what steps I take to motivate those learners. Agree

5. My principal wants to know what steps I take to motivate those learners. Strongly Agree
Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The principal appears interested in students' well-being.</td>
<td>2. The principal provides clear and concise feedback.</td>
<td>3. The principal respects diverse perspectives.</td>
<td>4. The principal encourages the development of critical thinking skills.</td>
<td>5. My principal wants to know what steps I take to motivate those learners who appear disengaged.</td>
<td>6. My principal asks how I help discouraged students build their confidence.</td>
</tr>
</tbody>
</table>

Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

6. My principal asks how I help discouraged students build their confidence.
Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>to students, especially those who appear disengaged.</td>
<td>agreement</td>
<td>disagreement</td>
<td>agreement</td>
<td>disagreement</td>
<td>agreement</td>
<td>disagreement</td>
<td>agreement</td>
</tr>
<tr>
<td>7. My principal asks how I convey acceptance and respect to students, especially those who appear disengaged.</td>
<td>Strongly Disagree</td>
<td>Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. My principal asks to see how I use performance and attitudinal information about individual students to improve my teaching.</td>
<td>Strongly Agree</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about the principal at your school.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My principal asks about my contact with parents/guardians of learners,</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>regardless of their academic and social standing in the class.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>My principal asks about my contact with parents/guardians of learners,</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>regardless of their academic and social standing in the class.</td>
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</tr>
<tr>
<td>My principal asks about my contact with parents/guardians of learners,</td>
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</tr>
<tr>
<td>regardless of their academic and social standing in the class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Teacher Perceived Interdependence with Parents

Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.

Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.
<table>
<thead>
<tr>
<th>1. Parent-teacher collaboration has positive consequences for learning.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>○ Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.</td>
</tr>
<tr>
<td>1. Parent-teacher collaboration has positive consequences for learning. Strongly Disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Parents and teachers depend on each other to maximize student learning and development.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>○ Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.</td>
</tr>
<tr>
<td>2. Parents and teachers depend on each other to maximize student learning and development. Strongly Disagree</td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.</td>
<td>3. Parent agreement with school policies and rules is important for a positive learning environment.</td>
<td>Strongly Disagree</td>
<td>Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>3. Parent agreement with school policies and rules is important for a positive learning environment.</td>
<td>Strongly Disagree</td>
<td>Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>4. Parents need to know that teachers value their insights related to student performance.</td>
<td>Strongly Disagree</td>
<td>Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

5. Parents should feel welcome in schools and classrooms.
   Parents should feel welcome in schools and classrooms.
   Somewhat Agree

6. Parents need to know that the school and its teachers value their support.
   Parents need to know that the school and its teachers value their support.
   Strongly Agree
Please indicate the extent to which you agree or disagree with the following statements about teachers and parents at your school.

7. Parent involvement in school activity promotes student motivation to learn.

Professional Development Opportunities

Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g. staff development) and informal (e.g. conferring with a colleague) learning experiences.

"My learning experiences this year..."
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g. staff development) and informal (e.g. conferring with a colleague) learning experiences.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>¡My learning experiences this year...¡</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Gave me many opportunities to work on aspects of my teaching.
   - Please
   - 2

2. Provided me with
   - Please
   - 2

Strongly Agree
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g., staff development) and informal (e.g., conferring with a colleague) learning experiences.

"My learning experiences this year..."

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provided me</td>
<td></td>
<td>Provided me</td>
<td>Provided me</td>
<td>Provided me</td>
<td>Provided me</td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td>knowledge</td>
<td>knowledge</td>
<td>knowledge</td>
<td>knowledge</td>
</tr>
<tr>
<td>which you</td>
<td></td>
<td>in my</td>
<td>in my</td>
<td>in my</td>
<td>in my</td>
</tr>
<tr>
<td>agree or</td>
<td></td>
<td>my classroom</td>
<td>my classroom</td>
<td>my classroom</td>
<td>my classroom</td>
</tr>
<tr>
<td>helpful to me</td>
<td></td>
<td>helpful to me</td>
<td>helpful to me</td>
<td>helpful to me</td>
<td>helpful to me</td>
</tr>
<tr>
<td>disagree with</td>
<td></td>
<td>in my</td>
<td>in my</td>
<td>in my</td>
<td>in my</td>
</tr>
<tr>
<td>the following</td>
<td></td>
<td>my classroom</td>
<td>my classroom</td>
<td>my classroom</td>
<td>my classroom</td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td>my classroom</td>
<td>my classroom</td>
<td>my classroom</td>
<td>my classroom</td>
</tr>
<tr>
<td>agree</td>
<td></td>
<td>Strongly</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>about your</td>
<td></td>
<td>knowledge</td>
<td>your learning</td>
<td>experiences</td>
<td>your learning</td>
</tr>
<tr>
<td>learning</td>
<td></td>
<td>experiences</td>
<td>at your</td>
<td>school</td>
<td>this year.</td>
</tr>
<tr>
<td>experiences</td>
<td></td>
<td>at your</td>
<td>school this year.</td>
<td>Please</td>
<td>consider both</td>
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<tr>
<td></td>
<td></td>
<td>your</td>
<td>staff</td>
<td>formal</td>
<td>(e.g.,</td>
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<td></td>
<td></td>
<td></td>
<td>development</td>
<td>) and</td>
<td>staff</td>
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<td></td>
<td></td>
<td></td>
<td>informal</td>
<td>informal</td>
<td>development</td>
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<td>(e.g.,</td>
<td>(e.g.,</td>
<td>knowledge</td>
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<td>conferring</td>
<td>conferring</td>
<td>helpful to me</td>
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<td>with a</td>
<td>with</td>
<td>helpful to me</td>
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<td>colleague)</td>
<td>knowledge</td>
<td>in my</td>
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<td></td>
<td></td>
<td></td>
<td>learning</td>
<td>knowledge</td>
<td>my classroom</td>
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<td></td>
<td></td>
<td></td>
<td>experiences.</td>
<td></td>
<td>Strongly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&quot;My learning</td>
<td></td>
<td>Disagree</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>experiences</td>
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<td></td>
<td></td>
<td></td>
<td>this year...&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Provided</td>
<td></td>
<td></td>
<td>allowed me</td>
<td>Allowed</td>
<td>Allowed me</td>
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<tr>
<td>me with</td>
<td></td>
<td></td>
<td>to focus on a</td>
<td>me to</td>
<td>me to focus on</td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td></td>
<td>a problem</td>
<td>focus on</td>
<td>a problem</td>
</tr>
<tr>
<td>helpful to me</td>
<td></td>
<td></td>
<td>in my</td>
<td>on a</td>
<td>on a</td>
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<tr>
<td>in my</td>
<td></td>
<td></td>
<td>my classroom</td>
<td>to focus</td>
<td>to focus on a</td>
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<tr>
<td>classroom</td>
<td></td>
<td></td>
<td>Strongly</td>
<td>me to focus on a problem</td>
<td>to focus on a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g. staff development) and informal (e.g. conferring with a colleague) learning experiences.

"My learning experiences this year..."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>which you agree or disagree with period of time.</td>
<td>problem for an extended period of time.</td>
<td>problem for an extended period of time.</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>about your learning experiences at your school this year.</td>
<td>Please consider both formal (e.g. staff development) and informal (e.g. conferring with a colleague) learning experiences.</td>
<td>&quot;My learning experiences this year.&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Allowed me to focus on a problem for an extended period of time. Strongly Disagree

4. Provided me with useful feedback
   - Please indicate the extent to which you received feedback.
   - Provided me with useful feedback
   - Provided me with useful feedback
   - Provided me with useful feedback
   - Provided me with useful feedback
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g., staff development) and informal (e.g., conferring with a colleague) learning experiences.

"My learning experiences this year..."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>about my teaching.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>agree or disagree with teaching.</td>
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</tr>
<tr>
<td>statement about your learning experiences at your school this year. Please consider both formal (e.g., staff development) and informal (e.g., conferring with a colleague) learning experiences. &quot;My learning experiences this year...&quot; 4. Provided me with useful feedback about my teaching. Strongly Disagree</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5. Made me pay closer attention to particular things I was doing in the</td>
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<tr>
<td>indicate the extent to which you pay attention to particular things I was doing in the</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>disagree with things I was</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g., staff development) and informal (e.g., conferring with a colleague) learning experiences.

"My learning experiences this year..."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>the following:</td>
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</tr>
<tr>
<td>classroom</td>
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<tr>
<td>doing in the</td>
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<td></td>
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<tr>
<td>statements</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>classroom</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>about your</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>learning</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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5. Made me pay closer attention to particular things I was doing in the classroom.

Strongly Disagree

6. Led me to seek out additional information from teachers, school

- Please
- 6. Led me to seek out additional information from teachers, school
- 6. Led me to seek out additional information from teachers, school
- 6. Led me to seek out additional information from teachers, school
- 6. Led me to seek out additional information from teachers, school
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g. staff development) and informal (e.g. conferring with a colleague) learning experiences.

"My learning experiences this year..."

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
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<th>Strongly Agree</th>
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</table>

6. Led me to seek out additional information from teachers, school administrator, or other sources.

7. Led me to think about teaching in a new way.

Please indicate the extent to which you agree or disagree with the following statements about teaching in a new way.
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g. staff development) and informal (e.g. conferring with a colleague) learning experiences.

"My learning experiences this year..."

<table>
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<tr>
<th>Strongly Disagree</th>
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<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
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</table>

7. Led me to think about teaching in a new way.
   Strongly Disagree

Please indicate the extent to which you agree or disagree with the following statements about your

8. Led me to try new things in the classroom.
   Disagree

8. Led me to try new things in the classroom.
   Somewhat Disagree

8. Led me to try new things in the classroom.
   Somewhat Agree

8. Led me to try new things in the classroom.
   Strongly Agree

8. Led me to try new things in the classroom.
   Agree

8. Led me to try new things in the classroom.
   Strongly Agree
Please indicate the extent to which you agree or disagree with the following statements about your learning experiences at your school this year. Please consider both formal (e.g., staff development) and informal (e.g., conferring with a colleague) learning experiences.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
| My learning experiences this year...

General Information

Including this year, how many total years have you taught?

Including this year, how many years have you taught in your current school?
Are you Nationally Board Certified?

- ○ Yes
- ○ No

Gender:

- ○ Male
- ○ Female

Survey Powered By Qualtrics
APPENDIX I

Vita

Melinda K. Stump completed all the doctoral components for her Ed.D. in Educational Leadership from The University of Oklahoma at Norman and the Department of Educational Leadership and Policy Studies in December 2016. Her research interests include relationships between principals and teachers, perceptions of teachers toward leadership, and leadership styles. She is a former middle school math and science teacher and a K-12 school counselor.