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Walden University

College of Education

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Matilda Mendez-Keegan

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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The Office of the Provost

Walden University

2019

Abstract

Transformational Leadership Practices and Student Achievement in Diverse Urban

Elementary Schools

by

Matilda Mendez-Keegan

MA, Mathematics, Brooklyn College, 1996

MA, Elementary Education, Brooklyn College, 1994

BA, Brooklyn College, 1992

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

September 2019

Abstract

The relationship between transformational leadership and student academic achievement in diverse urban elementary schools is under-researched. However, studies have indicated that there are no evident gains in student achievement when administrators and teachers differ on views of effective leadership practices. The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in English language arts (ELA) and mathematics within diverse elementary schools. Burns's seminal theory on transformational leadership was the theoretical framework for this study. The research questions were designed to explore the relationship between teachers' perceived rating of transformational leadership practices of administrators and student academic achievement in ELA and mathematics. The study was a secondary analysis of publicly available data from 595 elementary schools surveyed by the New York City Department of Education. Two one-way analysis of variance were conducted. From the data, a post hoc test was conducted that determined significant differences between teacher ratings of administrators and student achievement levels in ELA and mathematics. The results indicated the higher the transformational leadership score of administrators, the greater the student academic achievement level. This study may influence district superintendents to offer professional development to administrators, to participate in intervisitation between higher achieving schools and lower achieving schools, and to have administrators mentor one another in cohorts. Positive social change may result by assisting and guiding administrators to use effective transformational leadership practices to improve school climate, trust, and job satisfaction.

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Dedication

I dedicate my hard work and this paper to my parents, Louis and Hilda. They taught me to believe in myself, to “reach for the stars,” and to never give up. I am so thankful for their encouragement and support throughout my education. My only wish is my father were still here to witness me receiving this degree. I know he is proud of me and will always guide me. I am lucky to have had my mother here to listen to my complaints as well as my successes throughout this journey, and she will be there when I receive my degree. My mom is one of the strongest, most independent women I have ever known, and I am grateful I have chosen to follow in her footsteps. I love both my parents with all my heart, and I dedicate this paper to them.

Acknowledgments

I would like to first thank my husband, Mike, and my daughter, Kayla, for understanding how much receiving a Doctor of Education has meant to me. And for dealing with the many, many nights of me ignoring them. I love them both very much.

I would also like to thank my dissertation chair, Dr. Kathryn Swetnam. Your patience, support, and kindness helped me more than you will ever know. I am so grateful and thankful that you were my chair. Your dedication to your students is inspiring and you are a role model of what a true transformational leader is. For all your hard work I applaud you. I also want to thank Dr. Jack Billings, my second member, for all his quantitative methodological support and encouraging words. He has always made me feel successful, even when I doubted myself.

Finally, I would like to acknowledge my baby sister, Louisa, letting her know to never give up. We are strong women who can do whatever we put our minds to. And lastly, a shout out to my nieces and goddaughters, Caitlin and Isabelle, "Titi, loves you."

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Chapter 1: Introduction to the Study

Significant changes in the educational system; the advancement of technology; political, social, and economical shifts; and the diversity of student populations require public school administrators to be informed to meet the challenges of the 21st century (Tatlah, Iqbal, Amin, & Quraishi, 2014). For example, reforms such as Every Student Succeeds Act (ESSA) of 2015 were signed into law to improve the educational system (Saultz, White, McEachin, Fusarelli, & Fusarelli, 2017; Young, Winn, & Reedy, 2017). The ESSA requires states to align academic programs so students are college and career ready through standards, federal funds for resources, and equal educational opportunities for all students (Young et al., 2017). The ESSA also acknowledges instructional leadership as a major contributing factor in advancing student achievement and asserts the importance of developing school administrators to achieve national accountability goals (Young et al., 2017). Administrative leadership is a crucial factor influencing student achievement (Wang, Wilhite, & Martino, 2016; Young et al., 2017).

Effective administrators make positive changes, increase student achievement, and strengthen academic success within assigned schools (Quin, Deris, Bischoff, & Johnson, 2015). The role of the transformational leader is to transform the culture, climate, and people, and to meet the changing and complex demands within a school (Hewitt, Davis, & Lashley, 2014; McCarley, Peters, & Decman, 2016; Quin et al., 2015). A transformational leader employs leadership practices such as enabling others to act, modeling, inspiring a shared vision, challenging the process, and encouraging (Kouzes & Posner, 2009). A transformational leader's practices have a small but significant

influence on the school culture, climate, and achievement (Sun & Leithwood, 2017; Wang et al., 2016). However, most leaders do not realize how they are perceived by their subordinates and how these perspectives affect student achievement in diverse urban elementary schools.

The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in English language arts (ELA) and mathematics within diverse urban elementary schools. Administrators' and teachers' views on effective leadership practices should align to promote gains in student achievement (Allen, Grigsby, & Peters, 2015; Anderson, 2017; Boberg & Bourgeois, 2016; Sun & Leithwood, 2017). I investigated effective leadership practices from the perspective of teachers to enhance student achievement in diverse urban elementary schools. The results from the New York City's Department of Education school surveys (2018b), which rate the leadership practices of administrators, were used to compare teachers' perceptions of leadership practices and students' ELA and mathematics achievement. Findings may be used to improve principal preparation courses, professional learning programs, mentorships, and on-the-job training to enhance administrators' leadership skills. Administrators may use the findings to self-evaluate their current leadership practices and identify areas for improvement.

Background

Transformational leadership within education is the process whereby leaders and teachers work together to raise one another to higher levels of morale and motivation (Burns, 1978). The aim of the transformational leader is not only to build knowledge and

skills but also to increase commitment and capacity among teachers. The transformational leader also moves teachers from their individual self-interests by motivating educators to perform at higher levels (Bass, 1999). In addition to transformational leaders, transactional leaders can support an exchange relationship between administrators and teachers focusing on an administrator's self-interests by rewarding teachers for specific behaviors and actions (see Bass, 1999). Transactional leadership is also a way to control teachers through rewards, whereas transformational leadership is focused on motivating teachers to higher levels of success (Mette & Scribner, 2014).

Effective leadership includes a focus on the teachers and the professional performance and instruction within the classroom (Leithwood & Sun, 2012). Because instruction is key to student achievement, transformational and instructional leadership must coexist within the school (Day, Gu, & Sammons, 2016) and are necessary for students to achieve (Shatzer, Caldarella, Hallam, & Brown, 2014). Another leadership practice demonstrated by effective principals is managerial skills to establish a positive school climate, the way a teacher views the school environment, and the daily operations of the school building (Richter, Lewis, & Hagar, 2012). Teachers' perceptions of administrators' leadership practices influence teacher commitment, job satisfaction, and student achievement (Anderson, 2017). Therefore, an administrator's practices and behaviors influence teachers' perceptions and influence student achievement.

Transformational leadership emphasizes that administrators are potential change agents transforming the people, culture, and climate by meeting the changing and

complex demands within schools (McCarley et al., 2016; Quin et al., 2015). Effective administrators make positive changes, increase student achievement, and strengthen academic success within their schools (Quin et al., 2015). An administrator's responsibilities indirectly include having a positive influence on student achievement and academic performance (McCarley et al., 2016; Meyers & Hitt, 2017; Orphanos & Orr, 2014), and these responsibilities have a direct effect on the school environment including teacher perspectives of leadership practices (Allen et al., 2015; Shatzer et al., 2014), leading to an increase or decline in student achievement (Anderson, 2017). Thus, studying transformational leadership may lead to changes in principal preparation courses, professional learning programs, mentorships, and on-the-job training that may increase administrators' leadership skills.

Problem Statement

The relationship between transformational leadership and student academic achievement in diverse urban elementary schools is under-researched, though studies have indicated that there are no evident gains in student achievement when administrators and teachers differ on views of effective leadership practices (Allen et al., 2015; Anderson, 2017; Boberg & Bourgeois, 2016; Sun & Leithwood, 2017). Although researchers have addressed the issue of transformational leadership (McCarley et al., 2016; Orphanos & Orr, 2014; Quin et al., 2015), more research is needed to measure teachers' views of leadership practices (Pugh, Fillingim, Blackbourn, Bunch, & Thomas, 2012), which can vary from an administrator's views (Boberg & Bourgeois, 2016) and lead to a decline in student achievement (Wang et al., 2016). Additional research is also

needed to examine effective transformational leadership practices (Menon, 2014) in diverse urban elementary schools that result in the improvement of student academic achievement (Brown, Bynum, & Beziat, 2017; Lingam & Lingam, 2015; Sun & Leithwood, 2012).

Purpose of the Study

The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics within diverse urban elementary schools. ELA and mathematics are core subjects, and students are given a state assessment each year in Grades 3 through 5. The independent variable was teachers' ratings of principals' transformational leadership practices, and the dependent variable was students' state test scores as measured by the New York City Department of Education (NYCDOE) School Survey (2018a). The survey questions corresponded to Kouzes and Posner's (2009) five practices of highly effective administrators and Bass and Avolio's (1995) transformational leadership characteristics: (a) enabling others to act (idealized attributes), (b) modeling the way (idealized behaviors), (c) inspiring a shared vision (inspirational motivation), (d) challenging the process (intellectual stimulation), and (e) encouraging the heart (individualized consideration). The teachers' ratings of administrator leadership practices were analyzed using two one-way analyses of variance (ANOVAs) on SPSS Version 24 to determine whether significant differences existed between student achievement outcomes and the results of the leadership questions.

Research Questions and Hypotheses

The study was guided by the following research questions (RQs):

RQ1: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in English language arts?

H₀1: There is no significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in English language arts, as measured by New York State assessment scores.

H_a1: There is a significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in English language arts, as measured by the New York State assessment scores.

RQ2: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in mathematics?

H₀2: There is no significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School

Survey, and student achievement in mathematics, as measured by the New York State assessment scores.

H_{a2}: There is a significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in mathematics, as measured by the New York State assessment scores.

Theoretical Foundation

The theoretical framework for this study was based on Burns's (1978) theory of transformational leadership, which is the process whereby leaders and teachers can work together to raise one another to higher levels of morale and motivation. Effective leadership involves the leader moving followers from self-interests to idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1999). Idealized attributes, idealized behaviors, and inspirational motivation include being able to envision a desirable future by creating goals, articulating how the goals can be reached, setting an example for others to follow, setting high standards, and showing purpose and assurance (Bass, 1999). Intellectual stimulation occurs when followers have the freedom to be creative in their teaching (Bass, 1999) and are not micromanaged by the leader. Individualized consideration takes place when followers are encouraged to participate in various professional learning workshops and are mentored and coached by the leader (Bass, 1999).

The transformational leadership paradigm has also been extended with a focus on capacity-developing practices of teachers within schools (see Sun & Leithwood, 2017). Developing people is a central element in most school leadership frameworks (Sun & Leithwood, 2017). The three main practices included in developing people are providing intellectual stimulation, providing individualized support, and modeling desirable behavior (Sun & Leithwood, 2017). Intellectual stimulation is demonstrated by a leader encouraging creativity, challenging staff to evaluate personal pedagogical practices, and effectively implementing actions (Sun & Leithwood, 2017). Individualized support refers to the ability of a leader to listen and act as a mentor while treating staff as unique individuals and supporting their professional learning (Sun & Leithwood, 2017). Desirable behavior is a leader demonstrating integrity and ethical behavior that will lead to respect and trust from followers (Sun & Leithwood, 2017).

The transformational leadership paradigm is a framework that has been used to study leadership behaviors in educational settings (Allen et al., 2015; Anderson, 2017; Zeinabadi, 2013). I used this framework to examine the relationship between teachers' perceptions of administrator leadership practices and students' ELA and mathematics achievement within diverse urban elementary schools. A thorough discussion of transformational leadership theory is provided in Chapter 2.

Nature of the Study

I used a quantitative methodology, which enables a researcher to identify and describe results by converting data into a numerical form (Babbie, 2017). The quantitative method was appropriate for this study because the purpose was to analyze

numerical data and generalize the results to a larger population. A mixed-methods study includes both quantitative and qualitative elements (Lambert, 2013). A qualitative method is nonnumeric, and the intent is to explain meanings and patterns of data using purposeful samples (Lambert, 2013). Qualitative designs are appropriate when researchers attempt to make sense of and interpret things in their natural settings (Denzin & Lincoln, 2007). Because my research questions did not require qualitative data, the qualitative and mixed-methods approach were not appropriate for this study.

Quantitative methodology was appropriate to examine the relationship between teachers' perceptions of transformational leadership practices of administrators (independent variable) and students' academic achievement (dependent variable) within diverse urban schools. Each year teachers in New York City respond to a survey containing 26 selected items with subgroups. The items are focused on the six elements of great schools: rigorous instruction, collaborative teachers, supportive environment, effective school leadership, strong family-community ties, and trust (NYCDOE, 2018a). Effective school leadership was the area of concentration for this study by examining the relationship between teacher-rated leadership practices of administrators and student academic achievement in ELA and mathematics. Teachers in the study currently work in Northeastern diverse urban schools.

Two one-way analysis of variance (ANOVAs) were conducted to determine if there were significant differences between teacher ratings of administrators and student achievement levels in ELA and mathematics. The study was a secondary analysis of data from the selected schools surveyed by the Department of Education. The Department of

Education School Survey (NYCDOE, 2018a) data are publicly available online and contains teacher survey items related to administrator leadership, and student achievement ratings in ELA and mathematics for each school.

Definitions

Diverse urban elementary schools: Schools located in a city enrolling students of various economic, social, or cultural groups are considered diverse urban learning environments (McKenzie & Scheurich, 2007).

Purpose: A leader motivating teachers to extraordinary accomplishments by helping them realize the effect of their work (Danielson, 2009).

Student achievement: A student's academic performance score compared to a previous score from statewide, mandated criterion-referenced assessments is known as a student's achievement level (Sun & Leithwood, 2012).

Transformational leadership: A commitment to the vision of a school and a form of leadership that motivates, inspires, and challenges followers to take risks as practices a transformational leader uses to promote innovation, creativity, respect and trust from subordinates by considering individuals' development (Stein, Macaluso, & Stanulis, 2016).

Transactional leadership: A leader setting goals and then rewards teachers for meeting the goals is known as a transactional leader. Transactional leaders intervene if goals are not met (Stein et al., 2016).

Understandings of professional quality: The desirable attributes leaders and followers believe will benefit the school (Andersen, Bjornholt, Bro, & Holm-Petersen, 2018).

Assumptions

The following assumptions were necessary to consider study data valid from teacher-rated surveys seeking to identify essential conclusions of teachers' perceptions about administrators' transformational leadership practices as collected in the NYCDOE Survey:

- Teachers answered the questions on the survey honestly and to the best of their knowledge.
- Teachers were able to limit personal bias and answer questions truthfully based on perceived administrator's leadership skills.
- Teachers understood and were able to answer all the questions about their administrator in a specific school.
- Teachers had Internet access either at home or at school to complete the survey.

Additional assumptions related to this study concerning the New York State ELA and mathematics assessments as administered to students are as follows:

- Students were not able to cheat on the test.
- Teachers did not give students the answers to the test questions.
- Students' test scores were based on their achievement level.

Scope and Delimitations

This study was focused on the relationship between teacher-rated perceptions of administrators' transformational leadership practices and student achievement in ELA and mathematics as reflected by the NYCDOE School Survey (2018a). The scope of this study addressed the gap in the research concerning transformational leadership's effect on student achievement in diverse urban elementary schools. Because not all questions on the survey pertain to leadership practices, only questions pertaining to this topic were analyzed as it relates for the relationship to student achievement. Even though all diverse urban elementary schools (Grades PreK-5) were represented, not all teachers participated in the survey. Teachers are not mandated but are encouraged to rate their administrator's leadership practices and to complete the survey. A delimitation of this study was to use only elementary school survey results. The focus of the study was diverse urban elementary schools and students' assessment scores. Middle school and high school students have other assessments such as regents that are not included in the survey results.

Limitations

This quantitative study was focused on the leadership practices of elementary school administrators by teachers in diverse urban elementary schools and the relationship to ELA and mathematics achievement. The data were collected from teachers completing an online survey, prepared and administered by the NYCDOE (2018b). One potential limitation was that most respondents were female, which may pose gender bias, especially within elementary school settings. Another possible

limitation was that the wording of the survey questions and the choices may not be specific to the teaching positions or appropriate grade levels of the teachers or facilitate authentic insight. The same survey was given to teachers in all grade levels, from elementary through high school; therefore, teachers may have had difficulty answering questions not pertaining to their role in the school. Another potential limitation was the length of time a teacher has been employed within the school. New teachers may not know administrators well enough to inform the researcher. The NYCDOE survey (2018b) was completed unanimously; however, there is no distinction in questions based on teacher experience. A new teacher was required to answer the same questions concerning administrators as a veteran teacher and may not provide honest or knowledgeable answers to questions.

Significance

Administrators' leadership behaviors, the school culture, climate, productivity, and effectiveness lead to student achievement (Wang et al., 2016). A small number of leadership behaviors and practices known as transformational behaviors increase the commitment and effort of all stakeholders towards the school's goals (Leithwood & Sun, 2012). The significance of this study was to present findings of effective transformational leadership practices, as perceived by teachers in diverse urban elementary schools, related to students' ELA and mathematics standardized test scores (NYCDOE, 2018a). Positive social change may result from this study by assisting and guiding administrators to use effective transformational leadership practices to motivate, collaborate, and improve school culture and academic achievement in economically

diverse urban environments (Quin et al., 2015). The study may also have the potential to influence principal preparation courses and professional training for future administrators.

Summary

School leadership is the second most important factor after class instruction in a student's achievement level (Dutta & Sahney, 2015). A transformational leader motivates teachers by establishing clear direction and identifying what is of value to the school (Sergiovanni, 2007; Shahrill, 2014) for student achievement to occur (Quin et al., 2015; Shatzer et al., 2014). An administrator's leadership practices like enabling others to act, inspiring a shared vision, and challenging the process (Kouzes & Posner, 2009) helps serve others by giving them purpose (Greenleaf, 1977). To sustain an effective school environment, administrators should be knowledgeable of the way they are perceived by their subordinates and how these perceptions affect student academic achievement. Therefore, I investigated a relationship between teacher-rated survey results of school administrators and student ELA and mathematics academic achievement.

Chapter 2 consists of an analysis of the theoretical framework and includes a literature review of current articles on transformational leadership and student achievement. I present various leadership practices and the relationship to student academic achievement. In Chapter 3, I discuss the methodology used within the study and explain the design, population, and instrumentation of this research.

Chapter 2: Literature Review

The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics within diverse urban elementary schools. There is a gap in the research about administrators' transformational leadership behavior as perceived by teachers and its effect on student academic achievement in diverse urban elementary schools. The literature identified transformational leadership as a major factor in employees' perceptions of an organization's culture and climate (Kim & Yoon, 2015), which relates to an administrator's influence on students' academic achievement (Leithwood & Sun, 2018). But more studies are necessary to identify effective leadership practices (Pugh et al., 2012).

Chapter 2 provides comprehensive review of the theoretical framework for this study—the theory of transformational leadership (Burkholder, Cox, & Crawford, 2016). I discuss transformational leadership theory, behaviors, practices, and skills to compare techniques in effective transactional leadership models. Administrators have an indirect effect on student achievement and performance (McCarley et al., 2016; Meyers & Hitt, 2017; Orphanos & Orr, 2014) within a positive school environment, culture, and climate (Quin et al., 2015). Given these effects, teachers develop perceptions about administrators' leadership practices (Allen et al., 2015; Shatzer et al., 2014). In this chapter, I also analyze the data for a relationship between transformational leadership and student achievement, provide the characteristics of instructional leadership and the

connections to transformational leadership, discuss teachers' perceptions of effective leadership, and describe the influence of leadership practices on student achievement.

Literature Search Strategy

To conduct this review, I used the following databases: Thoreau, Google Scholar, ERIC, Academic Search Complete, Education Research Complete, ProQuest dissertations, and ScholarWorks. For school data, I searched the U.S. Department of Education website and the New York State Department of Education website. I scanned the references of significant articles and dissertations for additional sources. To search the databases, I used the following key words and phrases: *transformational leadership, transactional leadership, administrators, principals, elementary schools, urban elementary schools, leadership practices, leadership behaviors, student achievement, student test scores, school law, mentoring, and retention*. I limited the search to peer-reviewed articles and books published from 2013 to 2018 except for seminal articles. I repeated the process of gathering until I reached saturation.

Theoretical Foundation

The theoretical framework for this study is based on leadership theory from Burns and Bass, whose paradigm for transformational practices formed the basis of leadership in business as well as educational environments (Zeinabadi, 2013). Transformational leadership has been the most dominant leadership theory since the 1980s (Hoch et al., 2018). Burns (1978) wrote about leadership, power, and purpose and how leaders encourage followers to work for certain goals benefitting both the leader and the follower. As a result, the interaction between leader and follower may take two different

forms: transformational leadership and transactional leadership (Burns, 1978).

Transformational leadership is the process where leaders and teachers can work together to raise one another to higher levels of morale and motivation (Burns, 1978). For example, through self-determination, encouragement, and positive exchanges between administrators and teachers, followers perform beyond expectations (Liu, 2015; Mason, Griffin, & Parker, 2014). On the other hand, transactional leadership is an exchange between a leader and follower that is often a relationship to benefit both parties, such as administrators compensating teachers for staying after school; however, these compensations do not bind the leader and follower to a higher purpose (Burns, 1978).

Further, Burns (1978) identified transformational leadership as leaders transforming followers' attitudes, beliefs, and behaviors to a higher purpose through motivation (Anderson, 2017; Bass, 1999) to achieve extraordinary goals (Antonakis, Avolio, & Sivasubramaniam, 2003). Additionally, Bass, Avolio, Jung, and Berson (2003) defined the term *transformational leadership* as an adaptive leader who makes changes by making sense of the challenges leaders and followers face and responding creatively to these complex tasks. Leaders who display a transformational leadership style are successful administrators (Underwood, Mohr, & Ross, 2016). Transformational leaders are unselfish and places others' needs ahead of their own (Ewest, 2015) by communicating the school's vision, establishing norms, developing an individual's strengths by changing attitudes, and encouraging risk taking from staff (Anderson, 2017; Underwood, et al., 2016). Transformational leadership influences teachers' views of

school conditions, the culture, climate, commitment, performance, job satisfaction, and student achievement (Allen et al., 2015; Anderson, 2017).

Even though Burns is known as the founding father of the idea of transformational leadership (Zeinabadi, 2013), Bass (1999) built on the paradigm, stating that effective leadership refers to leaders moving followers from self-interests to a greater purpose (e.g., a purpose within schools). In this situation followers feel trust, admiration, and loyalty from leaders, so they go beyond what is expected for the organization (i.e., the school; Bass, 1999). Effective administrators want to establish a positive work environment where teachers achieve high expectations for students, the school, and the community. Bass continued to shape Burns's theory to specify five dimensions of transformational leadership: (a) idealized attributes, (b) idealized behaviors, (c) inspirational motivation, (d) intellectual stimulation, and (e) individualized consideration. Bass stated that idealized attributes, idealized behaviors, and inspirational motivation are practices that enable a leader to envision a desirable future by creating and articulating goals that can be reached, setting an example, having high standards, and showing purpose and assurance to create an organization of shared responsibility (Dartey-Baah, 2015). Intellectual stimulation is when followers have the freedom to be creative in their teaching (Bass, 1999), not micromanaged by the leader but encouraged to find personal solutions to various problems (Dartey-Baah, 2015). Individualized consideration occurs when followers are encouraged to participate in various professional learning workshops focused on personal and professional goals (Dartey-Baah, 2015) that are mentored and coached by the leader (Bass, 1999).

Sun and Leithwood (2017) extended the work of Burns and Bass by conducting research in educational settings. The continual focus on maximizing teacher and staff productivity is a central element in most school leadership frameworks. Sun and Leithwood believed that transformational leadership is evident when leaders emphasize capacity-developing practices of the teachers within assigned schools. Sun and Leithwood reviewed hundreds of studies asserting that a shared vision, intellectual stimulation, and individualized support increases student academic achievement. A shared vision appeals to followers' basic values and builds on principles to enact practices targeted at achieving school goals (Sun & Leithwood, 2015). Intellectual stimulation is demonstrated by a leader encouraging creativity, challenging staff to evaluate individual practices, and effectively implementing actions (Sun & Leithwood, 2017). Individualized support refers to the ability of a leader to listen and act as a mentor while treating staff as unique individuals and supporting their professional learning (Sun & Leithwood, 2017). Therefore, transformational leadership practices have the greatest influence on teachers' competence, and teacher commitment, trust, and efficacy positively relates to student learning (Sun & Leithwood, 2017). As a result, administrators demonstrating a shared vision, intellectual stimulation, and individualized support affect teacher commitment, trust, and efficacy that further influences instruction, moral growth, and academic achievement (Sun & Leithwood, 2017).

Researchers findings also support that transformational leaders demonstrate positive leadership practices, which increases teachers' confidence and leads to greater performance (Hoch et al., 2018; Karadag, Bektas, Cogaltay, & Yalcin, 2015; Mason et

al., 2014) in the classroom and higher student achievement levels (Sun & Leithwood, 2012). As a result, effective administrative leadership is crucial; it is second to classroom teaching and has a direct effect on student learning (Bush & Glover, 2014).

Administrators reaching this level of performance know, understand, and lead teachers at an intellectual and emotional level (Wang et al., 2016), which are characteristics linked to a transformational leader (Wang et al., 2016). Therefore, school leaders need to know how teachers' view an administrator's leadership skills for the success of the school and achievement of students in diverse urban classrooms.

Though researchers have suggested that transformational leadership leads to progress on restructuring initiatives that increase student achievement (Bush & Glover, 2014), critics argue that transformational leadership may be used to control teachers. Instead of administrators leading by example and motivating staff, leaders may require followers to accept the values and vision that are created for those leading.

Administrators and teachers must collaborate to create a vision and identify shared goals for change to occur within a school environment (Ewest, 2015). Leaders and followers need to have a shared understanding of professional quality and acceptable features between leaders and followers that will benefit the school, which will prevent leaders and followers from working against one another (Andersen et al., 2018). A shared understanding and trust between administrators and teachers are significant for the members of the organization to collaborate with one another. When individuals have different views and opinions of professional quality it leads to various perspectives of how things should be done within the school (Andersen et al., 2018). A positive

relationship between transformational leadership and shared understanding of professional quality leads to higher levels of professional quality; low levels of transformational leadership and low levels of shared understanding lead to low levels of professional quality and vice-versa (Andersen et al., 2018).

In summary, the theoretical framework for this study is based on Burns's transformational leadership theory. Without a shared vision, teachers and administrators may reflect conflicting views of effective leadership practices that affect student achievement in diverse urban elementary schools (Anderson, 2017). Therefore, the purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics within diverse urban elementary schools. The theoretical framework helped me define my research questions and address the purpose of the study. Grounded in Bass's (1999) transformational leadership paradigm, I categorized which leadership practices are related to higher gains on ELA and mathematics state assessments according to teachers' responses on the NYCDOE School Survey (2018b). The independent variable in this study was teachers' ratings of cooperating principal's transformational leadership practices, and the dependent variable was students' state test scores in ELA and mathematics. The data were obtained using public data from the NYCDOE School Survey. The survey questions are aligned to Kouzes and Posner's (2009) five practices of effective administrators (McKinney, Labat, & Labat, 2015; Quin et al., 2015) based on Bass and Avolio's (1995) transformational leadership characteristics.

Literature Review Related to Key Variables

Leadership is a required element for a learning environment to engage faculty and staff, implement organizational goals, and increase the academic achievement of students (Hauserman & Stick, 2013). The development and articulation of a vision of learning by the leadership provides clarity, consensus, and commitment to an organization and school community (Sergiovanni, 2007). This vision of leadership helps teachers to realize what is of value to the school, desire a sense of order and direction, and enjoy sharing this sense with others (Sergiovanni, 2007). The response from teachers to these conditions can be increased work and motivation (Hoch, et al., 2018; Underwood et al., 2016). The role of the principal is to establish a purpose for all teachers to be motivated and committed to their profession and to their students. As a result, school leaders should identify a successful leadership paradigm and combine a model that will promote the greatest success and achievement within the school. Having established the theoretical framework, the following literature review includes research on transactional and transformational leadership behaviors, assessment of leadership behaviors and practices, teacher perceptions of effective leadership, and the influence of leadership practices on student academic achievement.

Major Leadership Styles

Transformational and transactional leadership are two major leadership models (Burns, 1978; Sayadi, 2016). Transformational leadership addresses change, innovation, and envisions the future, whereas transactional leadership addresses the past and traditions (Sayadi, 2016). While the transactional leader focuses on the employee's

material needs, the transformational leader focuses on the employee's self-worth (Bass, 2000). Transformational leadership recognizes the needs of followers and elevates those needs to higher levels, whereas transactional leadership involves transactions between the leader and followers (Moolenaar, & Sleegers, 2015). However, the managerial attributes of transactional leadership (e.g., rewards, active management and passive management) are displayed before transformational attributes can surface (Hauserman & Stick, 2013). Over time, an effective leader will display attributes of both leadership styles but demonstrate more transformational and fewer transactional leadership behaviors (Bass, 1999, 2000). The result is higher staff morale, performance, and productivity within schools (Dartey-Baah, 2015).

Transactional Leadership Behaviors

Transactional leadership exists in an organization when changes occur during exchanges between leader and follower (Dartey-Baah, 2015; Moolenaar & Sleegers, 2015) who create a subordinate culture in the school building (Mette & Scribner, 2014). The transactional leader tends to be task- or goal-oriented and more concerned about on-the-job performance than about people-oriented practices (Dartey-Baah, 2015). The three, first-order factors of transactional leadership are (a) contingent reward leadership, (b) active management-by-exception, and (c) passive management-by-exception (Antonakis et al., 2003; Dartey-Baah, 2015). These are discussed in the following paragraphs.

Contingent reward leadership describes administrators who focus on task requirements and supervision, and who reward performance. Leaders adopt a reward

system whereby followers are rewarded for creating a desired outcome, which leads to extrinsic motivation (Antonakis et al., 2003; Bass, 2000; Dartey-Baah, 2015). Followers know and understand what must be done to be rewarded by praise, recognition, resources, and/or monetary items (Bass et al., 2003). For example, a contingent reward leader compensates a teacher for arriving to school early to assist with morning line-up by being paid for the time or allowed to leave early at the end of the day. In this situation, the teacher is extrinsically motivated to come in early to leave early, and the leader's goal of a safe line-up in the morning is achieved.

Management-by-exception is divided into active and passive practices. Active management-by-exception is when a leader ensures that standards are met by monitoring followers' performance on various tasks (Sayadi, 2016). This leader monitors for mistakes, errors, or actions that are out of compliance with expected behaviors and then actively intervenes to correct the problem (Bass, 2000; Bass et al., 2003). On the other hand, passive management-by-exception is when a leader is inactive and intervenes only when mistakes are made and/or when standards are not met (Antonakis et al., 2003; Bass, 2000). Bass (1999) identified the active management-by-exception practice as being more effective than the passive management-by-exception practice.

Several leadership factors have a stronger positive effect on teachers' job satisfaction and commitment than other leadership factors. For example, Sayadi (2016) conducted a quantitative study that included 431 survey responses to identify the transformational and transactional leadership factors that had the greatest positive effect on participants job satisfaction and commitment. Sayadi found that transformational

practices of (a) charismatic, (b) individualized consideration, (c) intellectual stimulation, and transactional practices (d) contingent reward, (e) active management-by-exception had the greatest positive effect on teachers' job satisfaction and commitment. Further, Dartey-Baah (2015) concluded that factors from both leadership styles are essential; mixing these two leadership styles into "transfor-sactional" (p. 106) behaviors helps in developing a powerful, new leadership approach. As noted earlier, an effective leader will demonstrate both leadership styles but will exhibit more transformational than transactional behaviors (Bass, 2000).

Transformational Leadership Behaviors

A transformational leader's behaviors are crucial in developing personal and social bonds with followers, while adhering to the mission and goals established within the school (Bass et al., 2003). Commitment, involvement, and performance are enhanced when a bond is created between the leader and followers (Bass et al., 2003).

Transformational leadership is based on an agreement, rooted in the school's vision between administrator and teachers, which influences student achievement and leads to the success of the school (Allen et al., 2015; Anderson, 2017; Moolenaar & Slegers, 2015). Transformational leaders have the capacity to move followers beyond self-interest through five leadership dimensions: (a) idealized attributes, (b) idealized behaviors, (c) inspirational motivation, (d) intellectual stimulation, and (e) individualized consideration (Allen et al., 2015; Antonakis et al., 2003; Bass, 1999; Bass & Avolio, 1995).

The first transformational dimension, idealized attributes, refer to leaders who exhibit socialized charismatic traits (Antonakis et al., 2003; Bass, 1999; Bass, 2000;

Dartey-Baah, 2015). This leader is confident, powerful, and focuses on ideals and the ethics of the school (Antonakis et al., 2003). Very similar to idealized attributes is the second leadership dimension, idealized behaviors, which refers to leaders' charismatic actions (Antonakis et al., 2003). This leader focuses on values, beliefs, and communicating a clear vision (Antonakis et al., 2003). As a result, the two behaviors are frequently combined and called idealized influence (Bass et al., 2003). A leader demonstrating idealized influence is a charismatic leader who is admired, trusted, and respected by followers (Bass et al., 2003). A charismatic leader is consistent in behaviors that represent positive ethics, principles, and values, and articulates how to be successful (Bass, 2000; Bass et al., 2003).

Inspirational motivation, the third dimension of transformational leadership behavior, refers to a leader who communicates, creates, and stimulates shared responsibility in followers (Dartey-Baah, 2015). The inspirational leader is able to motivate followers by providing meaning to the followers' work and challenging them in their work (Bass et al., 2003). The optimistic inspirational leader shares the school's vision and goals. The followers of an inspirational motivator envision a successful future and are inspired to fulfill goals (Allen et al., 2015; Bass et al., 2003).

The fourth behavior of transformational leadership skills, intellectual stimulation, refers to leaders inspiring followers to be innovative and able to solve problems in creative ways (Bass, 1999; Bass, 2000; Dartey-Baah, 2015). The leader appeals to followers and challenges them to find solutions to old problems in new ways (Bass et al.,

2003). Administrators exhibiting intellectual stimulation will not publicly criticize a teacher's mistakes but will encourage new ideas and creative solutions (Bass et al., 2003).

Individualized consideration is the fifth transformational characteristic; it refers to the fact that a leader treats each follower as an individual, personally and professionally. These leaders coach, mentor, and support followers to promote growth in an organization (Bass, 1999; Bass, 2000; Dartey-Baah, 2015). Administrators using individualized consideration skills create differentiated learning opportunities in a supportive environment where teachers can grow professionally (Bass et al., 2003). Recognizing teachers' strengths and mentoring them influences teachers' perceptions and the school climate (Allen et al., 2015).

Transformational leadership in scholarly literature. Transformational leadership is one of the most studied leadership theories in scholarly literature (Allen et al., 2015). Reoccurring themes from these studies include school climate, trust, and job satisfaction. Each of these themes are discussed and supported with scholarly literature below.

School climate. Researchers investigated transformational leadership and school climate and found a statistically significant positive relationship between the five dimensions of transformational leadership behaviors and school climate (Allen et al., 2015; McCarley et al., 2016). School climate refers to how teachers and students perceive their school and their principals' transformational leadership behaviors (McCarley et al., 2016). Allen et al. (2015) conducted a quantitative study of five elementary school principals and 55 teachers using the Multifactor Leadership

Questionnaire Form 5X (MLQ5X) to measure teacher perceptions of the school leader, the School Climate Inventory-Revised (SCI-R) to measure teacher perceptions of school climate, and the State of Texas Assessment of Academic Readiness (STAAR) in ELA and mathematics to measure student achievement. The researchers' findings indicated that transformational leadership factors and an administrator's relationship with teachers positively influenced the school climate (Allen et al., 2015). Changing stakeholders' way of thinking (Anderson, 2017) and improving the school climate (Allen et al., 2015) are two key ways of establishing effective leadership within the school.

In another study addressing school climate, McCarley et al. (2016) surveyed 399 teachers, in a large urban district in a southern state using the MLQ5X to assess teachers' perceptions of administrators' transformational leadership. The Organizational Climate Description Questionnaire for Secondary Schools was used to evaluate the school's climate. The findings indicated that an administrator must have the ability to exhibit power respectfully, fairly, and honestly by focusing on what is best for all stakeholders (McCarley et al., 2016). Sharing a sense of purpose, being goal focused, and portraying moral and ethical behaviors that influence teachers are characteristics of an effective transformational leader (Allen et al., 2015). Both studies provide evidence that school leaders' behaviors, attitude, and tone set the foundation for the school climate.

Trust. Another important theme in transformational leadership literature is teachers' ability to trust and believe in the reliability of their school administrator. Anderson's (2017) meta-analysis of the literature on transformational leadership in education concluded that teachers view principals as role models who inspire a trusting,

reassuring environment. A school environment whereby school leaders exhibit transformational leadership behaviors, particularly individualized consideration, increases the likelihood of having a trusting relationship between administrators and staff.

Anderson (2017) stated that teachers are more positive, committed, and intrinsically motivated by administrators using transformational leadership behaviors that inspire trust.

Zeinabadi's (2013) study conducted in public schools of the Middle East corroborated the findings from Anderson's (2017) analysis. Zeinabadi surveyed 400 teachers and 77 principals using the MLQ5X and other questionnaires, to study gender differences in transformational leadership and social exchange outcomes. Social exchange outcomes refer to an exchange between leader and follower that can range from rewards to a collaborative working relationship (Zeinabadi, 2013). The results of the study confirmed that transformational leadership behaviors are a significant predictor of trust. Trust between leader and followers results in a willingness to engage in organizational citizen behaviors such as being helpful and exhibiting behaviors that have an overall positive effect on the school (Zeinabadi, 2013). Therefore, one way an administrator can increase intrinsic motivation with teachers is to use transformational leadership practices to create a trusting school environment, whereby teachers intrinsically desire to perform their instructional roles that will help benefit the school.

Job satisfaction. A third repeated theme in the scholarly transformational leadership literature is job-satisfaction. An overall goal of a school leader is to create a positive environment where teachers are satisfied with their job and motivated to achieve common academic goals. Several researchers conducted research investigating the link

between leadership behaviors, teachers' perceptions of leadership behaviors, and job satisfaction (Dutta & Sahney, 2015; Kieres & Gutmore, 2014; Menon, 2014). According to the results, by creating a positive school climate the transformational leader had an indirect effect on job satisfaction.

Menon (2014) distributed the MLQ5X to 438 secondary school teachers in Cyprus and found that transformational behaviors are directly related to job satisfaction more than transactional practices, except in the area of contingent reward. Kieres and Gutmore's (2014) quantitative study in Pennsylvania found the addition of contingent rewards accounted for between 12% and 46% of teacher job satisfaction. Contingent reward behaviors indirectly improved performance and satisfaction between teachers and school leaders. However, in areas of high overall job satisfaction, teachers identified both transformational and transactional behaviors as being important motivators of job satisfaction. Further analysis of suggested transformational leadership behaviors may not be sufficient to increase job satisfaction and should be linked to other behaviors such as instructional leadership (Menon, 2014).

Day et al. (2016) furthered this thinking by conducting a mixed-methods study in England concerning how successful school leaders combine transformational and instructional leadership to increase job satisfaction among educators. The findings suggested that successful leaders understand how to apply and articulate shared educational values by understanding the schools' needs (Day et al., 2016). An instructional leader is a strong, guiding, target-oriented individual who aligns the

strategies and activities of instruction with the vision of the school (Karadag et al., 2015).

These factors help to increase educators' satisfaction of their role in schools.

On the other hand, Dutta and Sahney (2015), found that the physical climate; class sizes, professional development, and resources; and the social climate, played a dominating role on teacher job satisfaction. Teachers' perceptions of the workplace are important to their well-being and motivation (Dutta & Sahney, 2015). As a result, a teacher's perception of the school climate, physical and/or social, can either boost or deteriorate job satisfaction.

Assessment of Leadership Behavior

It is through effective leadership behaviors that an administrator plays an important role in school improvement and the transformation of a school. Administrators influence school improvement and academic outcomes of schools through their use of effective leadership practices. Therefore, school leaders need to self-reflect on their practices and the opinions of the staff by periodically participating in leadership and teacher surveys (McCarley et al., 2016). Receiving feedback in a timely manner can assist school leaders with improving their practices (Allen et al., 2015). School districts choose from various leadership surveys such as the Survey of Transformational Leadership (Wang et al., 2016), the MLQ5X (Antonakis et al., 2003; Bass, 2000; Bass et al., 2003; Sayadi, 2016; Zeinabadi, 2013), the Leadership Practices Inventory (LPI) (Kouzes & Posner, 2009), or create an instrument individualized to a specific school district. Each of these assessment tools are discussed providing information concerning the benefits and limitations of these instruments.

Survey of Transformational Leadership. The Survey of Transformational Leadership is an instrument of choice used by researchers to assess empowerment behaviors of school leaders. Empowerment is a significant theme in current leadership literature that the Survey of Transformational Leadership assesses independently from other leadership behaviors. The Survey of Transformational Leadership includes assessment questions specific to empowerment (Wang et al., 2016), whereas, other instruments such as the MLQ5X (Bass, 2000) do not assess empowerment as a separate characteristic. Practices that include empowerment, distributed leadership, and shared responsibility are essential behaviors a school leader needs to implement and are qualities of an effective transformational leader. Distributing school leadership responsibilities and increasing empowerment behaviors raises staff intrinsic motivation, self-confidence, and professional commitment (Balkar, 2015; Khan, 2015; Lee & Nie, 2017; Lingam & Lingam, 2015).

Multifactor Leadership Questionnaire. The most prevalent instrument used by researchers to assess the behaviors of a transformational leader is the MLQ5X (Antonakis et al., 2003; Bass, 2000; Bass et al., 2003; Menon, 2014; Sayadi, 2016; Zeinabadi, 2013). The original survey (MLQ) was created by Bass to investigate the relationship between transformational and transactional leadership (Menon, 2014) and contained six factors, four transformational and two transactional (Antonakis et al., 2003). Upon the completion of various further studies by Bass and his colleagues, the MLQ5X was developed. The MLQ5X measures the full range of leadership practices that includes five transformational, three transactional and one laissez-faire behavior (Antonakis et al.,

2003; Bass, 1999). The survey contains 45 items: 36 represent leadership factors of transformational leadership, transactional leadership and laissez-faire leadership, and the other nine items assess leadership outcomes (Antonakis et al., 2003). Bass (1999) stated that leaders who are more effective exhibit a higher level in transformational behaviors than transactional behaviors.

Researchers use the MLQ5X as the instrument of choice to measure administrators' transformational leadership behaviors. McCarley et al. (2016) used the MLQ5X in a quantitative study to measure the relationship between teacher perceptions of how administrators displayed the factors of transformational leadership and the school climate. A sample of 399 teachers in five large urban high schools were given the MLQ5X to assess administrators' transformational leadership behaviors and the Organizational Climate Description Questionnaire for Secondary Schools to evaluate the school climate (McCarley et al., 2016). The results of the study found a statistically significant relationship between the five transformational leadership factors and three factors addressing school climate: supportive, engaged and frustrated.

In contrast, Hauserman and Stick (2013) conducted a mixed-method study using the MLQ5X to investigate teacher perceptions of transformational leadership behaviors among principals. Once the MLQ5X was completed, the principals' leadership practices were ranked from high to low according to teachers' perceptions of transformational leadership behaviors. Afterwards, 10 teachers were selected for in-depth interviews including five teachers from schools with principals ranked high as having transformational leadership skills and five teachers from schools with principals who

ranked low in exhibiting transformational leadership practices. Teachers under the leadership of highly effective transformational principals provided positive responses about their administrators and praised the culture of the school. In contrast, teachers whose administrators used low transformational skills were frustrated and spoke negatively about their administrator's leadership practices. The MLQ5X is an established instrument that is used by researchers because it measures the full range of effective leadership behaviors: transformational, transactional, and laissez-faire behaviors (Antonakis et al., 2003; Bass, 1999) to identify teachers' perceptions concerning selected aspects of the school, such as the school climate, teachers' job satisfaction, and trust in administration.

Leadership Practices Inventory. Another effective way to measure leadership practices that is widely used in educational settings is Kouzes and Posner's (2009) Leadership Practices Inventory (LPI). The LPI consists of five practices of effective leaders: (a) enabling others to act, (b) modeling the way, (c) inspiring a shared vision, (d) challenging the process, and (e) encouraging the heart (Pugh et al., 2012). The survey contains two different forms, the observer form and a self-rater form, with 30 items that consists of six questions addressing each leadership practice (Pugh et al., 2012; Quin et al., 2015). The LPI observer form questions are related to how employees rate leader's behaviors; a minimum score is six and maximum score is 60 (Quin et al., 2015). The higher the score a leader receives for each of the practices, the more effective followers perceive the leader to exhibit effective leadership skills in a specific practice. The LPI self-rater form is related to how leaders rate personal practices (Pugh et al., 2012).

The first leadership practice assessed in the LPI assessment is enabling others to act and refers to leaders who communicate and collaborate with followers, encourage teamwork, and create an environment built on trust and respect (Lingam & Lingam, 2015; Quin et al., 2015). Empowering others to act as leaders to achieve the goals of the school requires an administrator who is willing to invest time and effort into the development of the staff (Lingam & Lingam, 2015). As a result, the leaders realized distributing leadership, empowerment, and shared responsibility are beneficial to the entire school and community and supports an environment based on trust and respect (Quin et al., 2015).

The second characteristic of the LPI survey is called modeling the way and refers to developing a clear set of values, setting positive examples, and leading followers (Quin et al., 2015). Administrators demonstrating this trait exhibit good teaching practices and create a sense of purpose and belonging to all stakeholders (Lingam & Lingam, 2015). To foster a sense of purpose, effective leaders develop a clear set of values for followers.

Inspiring a shared vision, the third attribute of the LPI, refers to leaders and followers collaborating with one another to create a vision for the entire community (Quin et al., 2015). Effective leadership is an ability to inspire a shared vision and communicate this vision to direct and align resources to reach the school's goals (Quin et al., 2015). Administrators and teachers guided by a shared vision make decisions on instruction, resources, policies and practices in the school (Quin et al., 2015).

Challenging the process, another identified quality of effective leadership identified in the LPI, refers to leaders who encourage and motivate followers to take risks

by trying new strategies (Quin et al., 2015). It is important for leaders to be able to recognize a need for change and how to improve leadership behaviors to successfully accomplish tasks (Lingam & Lingam, 2015). Effective administrators challenge the status quo by allowing teachers to attempt new skills and learn new procedures through experimentation and trial and error (Quin et al., 2015).

The final leadership characteristic in this assessment is called encouraging the heart and refers to leaders who encourage and inspire followers to achieve by creating a sense of belonging and commitment (Quin et al., 2015). Administrators increase teachers' commitment and motivation by celebrating and recognizing professional and personal achievements and efforts (Quin et al., 2015). Teachers who are acknowledged and recognized for their efforts are motivated to achieve the school's goals (Lingam & Lingam, 2015).

The LPI survey is used by researchers to determine which leadership practices are needed for academic achievement and a positive school culture. Pugh et al. (2012) used the LPI survey to conduct research regarding leadership practices of school principals. The Pearson product moment correlation coefficients (Pearson r) results were calculated after comparing principal and teacher scores on the five leadership practices identified in the LPI. The data ranged from .83 to .96 and demonstrated that all five practices had a high positive correlation at the .001 level. Based on these results, the LPI leadership trait of enabling others to act had the highest score and was a significant leadership practice observed by teachers for principals' leadership skills (Pugh et al., 2012). The results

indicated that principals' leadership practices were consistent with teachers' perception of the principal (Pugh et al., 2012).

In a similar study on leadership practices, McKinney et al., (2015) performed research to determine if there is a relationship between leadership practices of school administrators and the culture of the school. The results revealed a correlation between teacher rapport with administration, teacher rapport with each other, instructional issues, and an administrator's leadership practices (McKinney et al., 2015). The LPI leadership practices of enabling others to act and encouraging the heart were the two practices teachers strongly agreed are essential behaviors for administrators to portray (McKinney et al., 2015). From these research findings, it became evident that teachers' perception of their principal's leadership practices influenced teachers' morale, which in turn affect student achievement (McKinney et al., 2015; Pugh et al., 2012).

The research findings also showed a difference between leadership practices in higher-performing versus lower-performing schools. The leadership practice of inspiring a shared vision in the LPI was portrayed to be the most vital leadership practice in high performing schools, whereas, encouraging the heart was demonstrated to be a required leadership practice in low-performing schools (Quin et al., 2015). The overall finding of this quantitative study indicated that principals in high-performing schools exhibited a higher level of demonstrating Kouzes and Posner's leadership practices, whereas principals in low-performing schools had a moderate level of portraying these practices (Quin et al., 2015). The researchers' findings also indicated there was a significant difference with the leadership practices of inspiring a shared vision and challenging the

process between high- and low-performing schools, which directly affected the student academic achievement (Quin et al., 2015). Therefore, it is evident that administrators' leadership practices influence different environments of the school including student achievement and school culture.

Comparison of Bass's Behaviors and Kouzes and Posner's Practices

Bass (1999) extended the concept of Burns's (1978) transformational leadership by describing five main behaviors of an effective leader:

- idealized attributes,
- idealized behaviors,
- inspirational motivation,
- intellectual stimulation, and
- individualized consideration.

Burns (1978) believed that transformational leaders are agents of change who transform the values of followers by motivating them to higher levels of achievement. A transformational leader increases commitment and intrinsically motivates staff to perform at their maximum level. Bass (1999) built on Burns's transformational leadership paradigm by comparing transformational and transactional leadership behaviors.

Kouzes and Posner refined Bass's ideas of transformational leadership emphasizing that leadership is a set of learned practices that any individual can acquire (Quin et al., 2015). Through extensive research Kouzes and Posner established five leadership practices:

- enabling others to act,

- modeling the way,
- inspiring a shared vision,
- challenging the process, and
- encouraging the heart

Kouzes and Posner's (2003, 2009) leadership practices parallel Bass's (1999, 2000) transformational leadership behaviors. The five characteristics of transformational leadership behaviors and practices are similar and are often described synonymously in the literature. Bass (1999) identified five leadership behaviors, whereas, Kouzes and Posner (2003) recognized five leadership practices. The transformational leadership characteristics are parallel to one another and have similar meanings in the literature. For this study, the NYCDOE survey questions were grouped according to the behaviors and/or practices listed in this section. Therefore, it is crucial to acknowledge that Bass and Kouzes and Posner's leadership theory characteristics are often used interchangeably to describe exemplary leaders.

Teachers' Perceptions of Effective Leadership

A crucial aspect of leadership is the perception teachers have of the effectiveness of school administrators (Finnigan, 2012; Menon, 2014; Tatlal et al., 2014). Researchers have hypothesized a connection between administrators' transformational leadership behaviors and practices and teachers' positive assessment of the school leader (Finnigan, 2012; Menon, 2014; Tatlal et al., 2014). Leaders' transformational behaviors are linked to teachers' job satisfaction, motivation, and the overall effectiveness of the school (Finnigan, 2012; Lingam & Lingam, 2015; Menon, 2014). Recurring themes in the

literature concerning teachers' perceptions of an effective administrator include: being a role model, empowering staff, and creating a shared vision.

Teachers' Perceptions of Administrators' Role Model Practices

A positive transformational leader is a role model who demonstrates professionalism and self-efficacy to the staff, students, and parents. Hauserman, Ivankova, and Stick (2013) conducted a mixed-methods study using the Multifactor Leadership Questionnaire (MLQ), an early iteration of the MLQ5X, with open-ended questions and in-depth interviews with teachers. The researchers wanted to learn about leadership styles of school leaders according to teachers' perceptions. Data from the interviews of this study, obtained by the researchers, identified transformational leadership characteristics that were present in school administrators. The quantitative findings from the MLQ survey showed that transformational leadership was present but not significant to transformational outcomes (Hauserman et al., 2013). However, the qualitative portion of the study identified transformational leaders as being fair, consistent, trusted, seen as role models, and interacting daily with teachers and students (Hauserman et al., 2013).

Bryant, Escalante, and Selva's (2017) qualitative study further collaborated the importance of a role model that is exhibited in transformation leadership. This case study of three principals demonstrated the significance of the leadership practice of modeling the way, as defined by Kouzes and Posner's (2003) transformational leadership practices. The researchers' findings in this study indicated that principals who developed positive, supportive, trusting, and powerful mentor relationships with the teachers are integral

practices for administrators as role models (Bryant et al., 2017). Ross and Cozzens (2016) collaborated this finding in their study and described professionalism as the most significant role model behavior of administrators that influences school climate. In order for school leaders to achieve academic goals their leadership practices must demonstrate professionalism in the way they speak and act to their staff. Therefore, a positive role model must be able to lead by example, be conscious of how to act, know what tasks need to be accomplished, and how these actions may affect teachers' perceptions of an administrator's transformational leadership skills.

Teachers' Perceptions of Administrators' Empowerment Practices

According to teachers' perceptions, a second recurring theme in scholarly literature is empowerment. Teacher empowerment refers to the autonomy teachers perceive they have in the decision-making process of student learning and school wide systems (Balkar, 2015). A transformational leader empowers the staff by being approachable and an effective communicator, which results in a higher commitment by staff to perform (Balkar, 2015; Lee & Nie, 2017).

Balkar (2015) used a qualitative approach to study an empowering school culture according to teachers' perceptions. The study supported the premise that administrators encourage teacher empowerment by clearly communicating the school's vision and goals with confidence, while enabling teachers to take risks. Balkar (2015) found two major sub-themes of leadership behaviors: sense of confidence and support for risk-taking and proposed these practices to be the highest-ranked leadership behaviors for an administrator to promote an empowering school culture. Ross and Cozzens (2016) stated

the more teachers positively perceived leadership behaviors the more likely they had higher perceptions of an empowering school climate. Therefore, school administrators empower teachers by encouraging them to take risks, challenging the status quo, trying new methods, and modeling positive leadership behaviors that benefit the entire school culture.

Lee and Nie (2017) conducted a quantitative study that examined teachers' perceptions of administrators' empowering behaviors. The study compared teachers' perceptions of the principals' and the assistant principals' empowering behaviors. The researchers' findings of this study indicated the importance of considering teachers' perceptions of administrators' empowering behaviors and showed these behaviors to be positively related to teachers' psychological empowerment, which lead to teachers becoming intrinsically motivated to their job and committed to the profession. School leaders who motivated staff to accept challenges, feel reassured of their decisions, and envision a school where their self-worth was valued lead to teacher empowerment and a willingness to make changes within the school.

Lee and Nie (2017) also found a significant difference between teachers' perception of four leadership factors when assessing principals' and assistant principals' leadership behaviors. The results revealed that teachers perceived both levels of administrators as demonstrating empowering behaviors, but there were differences in the dimensions of these behaviors between a principal and assistant principal (Lee & Nie, 2017). For instance, principals engaged more in sharing the school's vision and collaboration among staff, whereas assistant principals engaged more in delegating

responsibilities and providing support. The results of this study demonstrated how an assistant principal may compensate and support certain leadership behaviors that the principal might not be exhibiting to the staff. Balkar (2015) and Lee and Nie (2017) identified empowerment as a crucial trait a successful transformational leader exhibits within their school that is positively linked to establishing a positive school culture and climate.

Teachers' Perceptions of Administrators' Shared Vision Practices

A third repeated theme of teachers' perceptions of transformational leadership behavior is establishing a shared vision among all stakeholders. Teachers and administrators develop a common vision by working collaboratively to define and accomplish specific school goals (Cook, 2014; Finnigan, 2012). Cook (2014) conducted a quantitative study of 79 participants that addressed sustainable school leadership according to teachers' perceptions. The participants in the study were graduates of an educational administration program who responded anonymously to questions about their administrator. According to the results, 70% of the participants believed that their principal communicated a shared school vision (Cook, 2014). The researchers' findings asserted school leaders understand the importance of establishing a school culture based on a collaboration of shared beliefs and developing sustainable school leadership (Cook, 2014). Successful school leaders take time to work jointly with teacher teams to cooperate with one another and identify common beliefs that will set the groundwork for creating a shared school vision.

On the other hand, Finnigan (2012) conducted a qualitative study of teachers in three low-performing elementary schools in Chicago. Finnigan's (2012) study established a link between identifying clearly defined goals and developing a vision for higher performance and motivation of teachers. These findings indicated that leadership practices are crucial in turning around low-performing schools to achieve higher levels of student achievement (Finnigan, 2012). According to Cook (2014) and Finnigan's (2012) research, administrators improved teacher performance by motivating and establishing a shared vision. A school leader is key in providing direction and articulating a clear vision by defining school goals. Overall, administrator leadership practices must be able to establish trust and support change concurrent with skills that create and establish a shared vision for the school.

Student Achievement

The major goal of the educational system is student achievement (Sun & Leithwood, 2012). Administrative leadership indirectly affects student achievement and is second only in importance to direct classroom instruction (Boberg & Bourgeois, 2016; Bush & Glover, 2014; Dutta & Sahney, 2015; Leithwood & Sun, 2018). Other researchers' findings found that principals' leadership skills directly influence student achievement through constant interactions such as a positive working relationship between teachers and administrators that produces an effective school climate and culture (Ross & Cozzens, 2016). As a result, administrators are held accountable for students' academic achievement demonstrated from standardized state test scores (Karadag et al., 2015). Shatzer et al., (2014) identified instructional skills and transformational practices

as models of leadership that affect students' academic progress. Researchers have attempted to distinguish between these two styles to identify which one has the greatest impact on school culture, climate, and student achievement. Consequently, recurring themes in the literature on student achievement included various leadership styles and professional learning communities (PLCs) and are addressed in the following sections.

Instructional, Transformational, and Transactional Leadership

Effective instructional leaders focus on curriculum and instruction to turn around low-performing schools (Ylimaki, Brunderman, Bennett, & Dugan, 2014). Effective instructional leaders know pedagogy, curriculum, and understand how students learn. Instructional leaders know which behaviors effect student achievement: monitoring student progress, adhering to instructional time, providing incentives, and making rewards contingent (Shatzer et al., 2014). The goal of an instructional leader is to increase the school climate, culture, and instructional best practices that lead to teacher effectiveness (Ross & Cozzens, 2016). As a result, to establish quality instruction, classrooms need to have differentiated curriculum, teachers asking higher-order thinking questions, and offer a variety of assessment choices. For classroom instructional excellence to occur, administrative leadership practices must include collaboration, reflection, diversity, and professionalism (Ross & Cozzens, 2016).

Instructional leaders' focus is on the school climate, which affects school culture and student achievement (Ross & Cozzens, 2016). School climate is something that cannot be seen but felt within the school and between individuals. Ross and Cozzens (2016) found professionalism ranked the highest leadership behavior, according to the

Leadership Behavior Inventory, having the greatest influence on school climate. The Leadership Behavior Inventory addresses teachers' perceptions of administrators according to 13 core competencies of leadership that include: (a) assessment, (b) collaboration, (c) curriculum and instruction, (d) diversity, (e) inquiry, (f) instructional leadership, (g) learning community, (h) organizational management, (i) professional development, (j) professionalism, (k) reflection, (l) unity of purpose, and (m) visionary leadership. The way administrators treat, act, and speak to teachers has a direct effect on school climate and an indirect effect on student achievement. Adams, Olsen, and Ware (2017) measured teacher-perceived interactions with school leaders using the Principal Support for Student Psychological Needs assessment. The results indicated that daily principal-teacher social exchanges influence student achievement.

Sun and Leithwood (2012), on the other hand, synthesized transformational school leadership research for effect on student achievement. They found that school leaders have the unrelenting task to improve student achievement and that instruction is of highest importance, resulting in an integration of transformational behaviors with instructional practices. Other researchers who studied instructional leadership revealed that classroom instruction accounts for higher gains in student achievement (Shatzer et al., 2014). However, upon further analysis, the results can only be explained by principals' leadership being rated effectively by teachers who completed an anonymous questionnaire evaluating leadership behaviors. The curriculum, context, and standards tend to remain unchanged, whereas the leaders' practices influence the progress of the

students. Therefore, school leaders must be able to combine instructional practices with transformational leadership behaviors.

Another prominent leadership style that influences student achievement is transactional leadership. According to Urick (2016), transactional leadership skills include a principal who manages the budget, hires and supervises staff, maintains order and safety within school grounds, and oversees day-to-day operations. Teachers and students need to have a safe and orderly environment, and sufficient resources for teaching to occur. An administrators' leadership style will change according to the needs of the school, the experience of the teachers, the personality of the principal, and the school environment. Urick (2016) studied the relationship between transformational, transactional, and instructional leadership styles, to reach shared instructional leadership. Through shared instructional leadership teachers and administrators work collectively. What matters most for student achievement is instructional leadership distributed and shared between administrators and teachers within the school.

In a district study on the characteristics of high-performing schools, Sun and Leithwood (2017) identified coherent instructional leadership as a factor that influenced student achievement, as rated by principals and district leaders. Over the course of the study, curriculum and instruction changes were made to include greater collaboration, greater consistency, and increased support by district leaders. Administrators were expected to build on district plans as their individual school plans were being created to focus on the academic needs of individual students. Consequently, instructional, transformational, and transactional leadership practices must be evident for student

achievement to be successful and occur in a partnership between district leaders, administrators, and teachers.

Professional Learning Communities

PLCs are a recurring theme in the literature on student achievement: teachers and administrators collaborating and learning from one another in an environment where they take responsibility for achieving high-quality instructional learning (Vanblaere & Devos, 2016). PLCs are the driving force that lead to teacher learning, improved instruction, and student achievement where teachers engage with peers in a purposeful interaction and a clear focus (Munoz & Branham, 2016). Schools that engage in PLCs are the best hope our school system has for academic improvement (DuFour, 2007). The goal is for teachers to learn new knowledge that will be implemented in their classrooms and lead to student achievement.

A problem with the PLCs is the wide variation between how these communities should be implemented and are applied (Vanblaere & Devos, 2016). Successful PLCs occur when teachers find them worthy, learn from the experiences, align their practices, and take the information back to the classroom (DuFour, 2007). Vanblaere and Devos (2016) found combining transformational and instructional leadership in PLCs led to higher quality pedagogy within the classrooms. The results of the study, according to teacher perceptions, indicated that both instructional and transformational leadership behaviors have a role for achieving high interpersonal PLC characteristics. The higher a transformational leadership score a principal received, based on teachers' perceptions, the more instructors in this study felt empowered with collective responsibility (Vanblaere &

Devos, 2016). On the other hand, a contributing factor effecting how teachers perceived instructional leadership in their school was related to their individual participation in reflective dialogue with one another.

In another study on teachers' perceptions and implementation of PLCs, Peppers (2015) interviewed eight high school teachers. The findings in this study revealed that PLCs are successful in providing professional learning and collaboration. A teacher's perception of PLCs influences the school environment and requires sharing, planning, and effective transformational leadership for professional learning to occur (Peppers, 2015). Therefore, administrators' transformational leadership behaviors have a direct effect on the success or failure of a school's PLC model that may then affect student achievement. Professional learning communities are a prevalent means in schools across the country that are used to increase academic progress of students. Many school districts assert that teachers can learn from one another and PLCs are one way to help close the achievement gap (Munoz & Branham, 2016). Therefore, it is crucial for school leaders to understand the value of PLCs, how to implement these communities, and how to evaluate the results. Munoz and Branham (2016) used a quasi-experimental design comparing schools that received positive transformational leadership support implementing PLCs and those schools that received minimal administrative support. After analyzing state data from the baseline year with 2 years after implementation, Munoz and Branham (2016) found that the growth in schools' test scores with strong support for PLCs was double the gains of those students who obtained little PLC administrative support. Researchers' findings from this study support the conclusion that

when PLCs are provided with effective professional training that are implemented with fidelity and supported by administrative leadership, student achievement will occur.

In contrast, Sims and Penny (2015) studied PLCs that narrowly focused on student test scores. These PLCs failed to significantly affect student academic achievement. The results from this qualitative study found that the focus on data and assessments interfered with teacher collaboration on content and methods. Teachers also reported that insufficient time, and administrators being disengaged and unsupportive of PLC goals led to a lack of PLCs affecting student achievement. Transformational leaders need to implement PLCs that are focused, allowing time for teachers to work together in a trusting, collaborative environment in order for student achievement to continuously increase. The transformational leader understands the importance of enabling others to act within small communities on a specific topic will benefit students' academic success.

Summary and Conclusions

In this literature review, I compared transformational and transactional leadership behaviors and practices and the instruments that are used to assess these skills. The most commonly used instrument to assess the behaviors of a transformational leader is the MLQ5X (Antonakis et al., 2003; Bass, 2000; Bass et al., 2003; Menon, 2014; Sayadi, 2016; Zeinabadi, 2013). The MLQ5X measures transformational, transactional, and laissez-faire behaviors (Antonakis et al., 2003; Bass, 1999). I also compared the five leadership practices proposed by Kouzes and Posner (2009) with the leadership behaviors characterized by Bass (1999) to identify the similarities between the practices and behaviors.

In Chapter 2, teacher perceptions and student achievement were topics addressed in relationship to leadership practices. Each topic contained major recurring themes such as role model, empowerment, shared vision, and PLCs. Researchers stated that transformational leadership behaviors influence teachers' positive perceptions of the school administrator (Finnigan, 2012; Menon, 2014; Tatlah et al., 2014). Teachers having a positive perception of the school leader leads to job satisfaction and increased student achievement (Ross & Cozzens, 2016).

The main goal of administrators in diverse urban elementary schools is academic student achievement. The leadership style of administrators influences school environment, job satisfaction, and student learning (Shatzer et al., 2014). Finnigan's (2012) study revealed that transformational leadership behaviors affected teacher motivation leading to student performance, whereas, instructional leadership is directly linked to higher achievement levels (Shatzer et al., 2014). As a result, both leadership styles, transformational and instructional, are necessary for student progress and achievement within a school.

In Chapter 3, I explain the research design, rationale, and the methodology that was used for this study. I describe the NYCDOE teacher survey and how it connects to transformational leadership practices and behaviors. I also present the population, sampling procedures, instrumentation, data collection, and analysis.

Chapter 3: Research Method

Meeting the challenges of the 21st century requires transformational school administrators be well prepared to facilitate positive changes within schools relating to increased student achievement (Quin et al., 2015; Tatlah et al., 2014). School leaders engaging specific leadership practices affecting school culture, climate, and influences student academic achievement are transformational leaders (Sun & Leithwood, 2017; Wang et al., 2016). The way administrators are perceived by teachers directly influences culture and climate of the school (Ross & Cozzens, 2016). Transformational administrators need not only to self-appraise leadership practices, but also to be aware of subordinates' perceptions of leadership practices as relating to student achievement (Ross & Cozzens, 2016).

The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics within diverse urban elementary schools. In this study, I identified teachers' perceptions of transformational leadership practices in assigned schools and how the practices related to students' ELA and mathematics achievement level on the New York State assessment (NYCDOE, 2018b). Teachers' perceptions of transformational leadership appeared as numerical coefficients formulated from teachers assigning numerical values within assessment items. Transformational leadership practices relate to higher academic achievement within schools (Hoch et al., 2018; Karadag et al., 2015; Mason et al., 2014). The findings from the study may lead to changes in principal preparation courses and professional learning programs that prepare

individuals for transformational leadership roles. In Chapter 3, I present the research design and rationale, the methodology, population, sampling procedures, instrumentation, data collection, and analysis. I also identify potential impediments to study validity and ethical procedures.

Research Design and Rationale

I chose a quantitative methodology, which was appropriate to analyze numerical data and make inferences about the data. In a quantitative study, a researcher identifies numerical data, analyzes data, and presents results (Babbie, 2017). I examined the relationship between teachers' perceptions of transformational leadership practices of administrators assigned to their buildings (independent variable) and students' academic achievement (dependent variable) in diverse urban schools. A quantitative approach was appropriate to answer the research questions and test the attending hypotheses to advance knowledge in the discipline because a researcher describes results by converting data into a numerical form (Babbie, 2017). The purpose of this study was to analyze numerical data to make evident a relationship and generalize the results.

I used archival data collected from the NYCDOE school survey that teachers are mandated to complete each year (NYCDOE, 2018b). The NYCDOE school survey data are publicly available online and provide teacher survey results from each school. The NYCDOE school survey is comprised of 26 selected items using a Likert scale and is focused on the six elements that have been identified in high performing schools: (a) rigorous instruction, (b) collaborative teachers, (c) supportive environment, (d) effective school leadership, (e) strong family-community ties, and (f) trust (NYCDOE, 2018b).

These characteristics relate to an operational definition for transformational leadership found in research (Stein et al., 2016). The coefficient of transformational leadership in the survey ranges from the highest level of leadership (4.99) to the lowest level (1.00). I disaggregated the effect of leadership scores according to the school survey results from the 610 elementary schools that participated in the survey obtained from the NYCDOE (2018a) website. Next, I disaggregated student achievement levels in ELA and mathematics by individual schools from the New York State Education (NYSED; 2018) website, which contains public data of each school's proficiency score in ELA and mathematics. I used the same 610 elementary schools to find the number of students who received minimal proficiency on the state assessment. The coefficients recorded are the percentage of students demonstrating minimal proficiency, Level 3 or Level 4, on the New York State assessment in ELA and mathematics.

Using relational design and analysis, I analyzed the relationship between teacher-rated leadership practices of administrators and student academic achievement in ELA and mathematics. I identified the relationship between the leadership element score and the academic proficiency percentages of each school. The aim of this quantitative study was to make evident a relationship between teachers' tabulated perceptions of transformational leadership practices in economically diverse urban elementary schools, and corresponding minimal student proficiencies in ELA and mathematics as determined by the scale score from the New York State Common Core Assessments. I first created an excel spreadsheet to collect the school leadership coefficient rating, the number of teachers, the percentage of teachers, and the NYSED minimal proficiency percentage in

ELA and mathematics per school (see Appendix). I then transferred the data onto the SPSS (Version 24.0) site to identify the relationship between teachers' perceptions of administrators and student achievement.

For this study, a two one-way analysis of variance (ANOVAs) was conducted to determine whether there is an evident relationship between the independent variable (teachers' perceptions of transformational leadership practices of administrators) and the dependent variable (students' academic achievement in diverse urban elementary schools during 2017-2018 school year). The ANOVA answered the research questions and identified whether there was a relationship between teachers' perceived rating of transformational leadership practices of administrators and student academic achievement in ELA and mathematics. The study was a secondary analysis of data from elementary schools taking what was presented and identifying potential relationships. From the data I wanted to determine if there was an evident statistical relationship between teacher ratings of administrators and student achievement levels in ELA and mathematics.

Methodology

Setting

New York City school district has 1,843 campuses, making it the largest school district in the United States (NYCDOE, 2018a). The campuses include 660 middle and high schools, 661 elementary schools, and 227 charter schools (NYCDOE, 2018a). The district employs over 73,000 teachers who teach 1,135,269 students—48.6% female and 51.4% male (NYCDOE, 2018a). The school district provides education to a diverse ethnic population: 40.5% Hispanic, 26.0% African American, 16.1% Asian, and 15.0%

Caucasian (NYCDOE, 2018a). The demographics of students are further comprised of 13.5% English language learners, 19.7% students with disabilities, and 74% economically disadvantaged students (NYCDOE, 2018a), demonstrating the diversity in New York City public schools.

Population

For this study there were no active participants. The research engaged only archival and publicly available data from NYCDOE school survey easily codified. I also looked at the aggregated scores of students from the NYSED website. There are over 1,800 campuses in the New York City school district. Because the purpose of the quantitative study was to determine whether there is a relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics in diverse urban elementary schools, only elementary campuses were included. There are 610 elementary schools in New York City that participated in the survey, and all elementary school teachers had the opportunity and the resources to participate.

Sampling Procedures

New York City elementary school teachers participate annually in an online school survey. Even though teachers at each school are mandated to participate in the survey, teachers voluntarily complete the survey. All teachers completing the survey are part of the sample group. In the study, the number of teachers choosing to complete the survey at each elementary school varied, with percentages ranging from 14% to 100% (see Appendix). A low response rate by teachers, less than 30% or fewer than five

responses, for the element effective school leadership will produce a not applicable (N/A) standardized survey element score. From the 610 schools, several schools fit the criteria and therefore were not included in the study findings. The total population group of teachers who completed the survey was 24,090, and 595 schools were included in this study.

To complete the survey, teachers were given individual codes to access the online school survey ensuring responses are attributed to specific schools but not an individual respondent. The identity of the individual respondents is anonymous, whereas the school is identifiable. The results of the survey are public data, which allow researchers to use these data for further research. Accordingly, recruitment of participants was not necessary.

The population of all elementary schools in New York City was considered by accessing the Quality Guide-Online Edition survey results (NYCDOE, 2018b). I created an Excel document to compile the data (see Appendix) recording the results of all schools reporting higher than 30% participation. The School Quality Guide provides the response rate of teachers who completed the survey by raw score and percentage by school. The 2017-2018 School Quality Guide-Online Edition has a category labeled *NYC School Survey Results and Quality Review*.

Archival Data

For the study, I used archival data from the NYCDOE website and the NYSE website. The NYCDOE provides a School Quality Guide Snapshot-Online Edition that contains three main tabs of data labeled: (a) *student population and characteristics*, (b)

New York City school survey results and Quality Review, and (c) *student achievement and outcomes*. The Student Population and Characteristics section provide enrollment over time, students in need of additional supports, and demographics of the school. The Student Achievement and Outcomes section also lists the school's student achievement level but does not list the student proficiency percentage or the number of students proficient in ELA and mathematics. As a result, I used the NYSED (2018) website for student achievement levels. The NYSED website identified the total number of students who took the ELA and mathematics assessments by school, by grade, and by demographics. I used the ELA and mathematics minimal proficiency percentage from each of the elementary schools that I retrieved a school leadership coefficient score taken from the NYCDOE School Quality Guide. I chose students in Grades 3, 4, and 5 as listed for each elementary school in New York City because administration to the grades is required within the New York State Common Core ELA and mathematics assessments each year within elementary schools.

The NYSED uses four levels of student performance to assess growth of student academic progress. Performance Level 1 is comprised of students performing significantly below grade-level standards. Level 2 represents students functioning below grade-level standards. Level 3 are students performing on grade-level standards and Level 4 indicates children achieving above grade-level standards. The NYSED proficiency rating consists of all students receiving a Level 3 or 4 on the state assessments. Students performance levels are obtained by converting the number of correct answers into a scaled score. The scaled score is then divided into the four

performance levels. I only used state assessment data from the 595 New York City elementary schools that I retrieved a school leadership score.

Instrumentation and Operationalization of Constructs

In this quantitative study the leadership coefficient was comprised of teachers' perceptions of elementary school administrators from the NYC school survey. A score of 3.8 or higher was established as the minimal evidence upon which transformational leadership is declared evident. I chose this score because an element score of 4.00 to 4.99 is excellent; therefore, 3.8 allows for undetermined influences of teachers' perceptions regarding their administrator. On the NYS Common Core Assessments a score of 3 or higher is proficient. For this study the school proficiency percentage in both ELA and mathematics must be 45% or higher. I chose 45% because on the NYS ELA exam 46% of NYC students received a proficiency level of 3 or 4 and 47% on the math exam. Within the study a relationship was determined as significant when a leadership score of 3.8 or higher corresponded to an overall student academic proficiency percentage of 45% or higher.

New York City Survey. The first instrument I used was the NYC School Survey administered annually to parents, teachers, and students associated with all public schools throughout the state since 2007. Teachers are expected to complete the survey each year, which is based on the framework for great schools (NYCDOE, 2018b). The framework for great schools is based on Bryk's (2010) research on school improvement. At the center of the framework is student achievement, which is the goal of education. Surrounding the framework are six elements: (a) rigorous instruction, (b) collaborative

teachers, (c) supportive environment, (d) effective school leadership, (e) strong family-community ties, and (f) trust (NYCDOE, 2018b). The instruments were determined appropriate for this study providing quantitative data to determine the potential relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics within diverse urban elementary schools.

The NYC survey framework's first measured element, rigorous instruction, establishes the foundation to quantitatively discern great schools' rigorous instruction, and high standards aligned to the Common Core Standards, as used for instruction in every classroom. The second element, collaborative teachers, discerns teachers committed to the success of students and consistently participate in professional development opportunities. Supportive environment is the third element quantitatively discerning school culture where students and staff are safe and supported by teachers and peers. The fourth element, effective school leadership, depicts school leaders who motivate by example, focus on teachers' professional growth, and provide instructional and social-emotional support that results in student academic achievement. Strong family to community ties is the fifth element and refers to administrative leadership including resources from the community in the school building through developing partnerships with local civic leaders. The final element, trust, connects each of the six elements together to create a cohesive whole. Trust is everyone working together towards a common goal of student achievement by respecting and valuing one another (NYCDOE, 2018b). Within this study, I considered only the fourth subsection of the data report relating to effective school leadership. Effective school leadership is deemed evident when a school faculty

response indicates a minimal, aggregated coefficient of 3.8 or higher. A leadership coefficient of 3.8 is at the higher end of a rating of good.

The NYC School Survey element for assessing effective school leadership is composed of four measures: inclusive leadership; instructional leadership; program coherence; and teacher influence. Each measure contains questions or statements (see Table 1) of what the principal at the school exhibits in relation to each of the measures.

Table 1

Effective School Leadership: Questions Included with Each Measure

Measure	The principal/leader at this school
Inclusive leadership	Is strongly committed to shared decision making.
Instructional leadership	Communicates a clear vision for this school.
Program coherence	Is clear how all the programs offered are connected to the school's vision.
Teacher influence	Encourages feedback through regular meetings with teachers.

Note. Adapted from “Framework and School Survey Scoring Technical Guide 2016 2017,” by the New York City Department of Education, 2018.

Each survey question is calculated by the percentage of positive responses, such as strongly agree and agree, whereas, “I don’t know” or missing responses are excluded. Each measure’s value is the average of the percent positives of all the questions within the measure. Each element’s value is the average of the measure-level percent positives for all the measures within the element. For example, the total percent positive for effective school leadership is the average of the percent positives on each of its four measures.

To generate a standardized survey element score, the following process was used.

- Question-level percent positive: percent of positive responses for each question;
- Measure-level percent positive: the average of the question-level percent positive values for all questions within the measure;
- Standardized measure score: the raw measure score is converted to a scale score that reflects standard deviations away from the mean. The percent of range method is used to show where the school’s score falls; and

- Standardized survey element score: the average for all measures within the element.

Starting school year 2016-2017, the school's element score was a weighted average between the school survey and the Quality Review. The Quality Review is a 2-day visit by an experienced educator, selected by the NYCDOE, to observe the degree to which a school supports student learning and teacher practices (NYCDOE, 2018c). A Quality Review rubric is used to score the school and contains 10 indicators that are related and part of the score of each of the elements on the school survey. For example, effective school leadership survey was weighted at 40% (.40 X standardized survey element score); Quality Review indicator 1.3, 3.1, and 5.1 were each weighted at 20% (.20 X each Quality Review standardized score) for a total of 100%.

While the independent variable is the relationship between teachers' perceptions of transformational leadership practices made evident by local administrators, the dependent variable is students' academic achievement within diverse urban schools. The NYCDOE school survey, effective school leadership element depicts how teachers perceive administrators and how effective leadership is in their school building. The data are listed as an element score and is given a rating (excellent = 4.00-4.99, good = 3.00-3.99, fair = 2.00-2.99, poor = 1.00-1.99; NYCDOE, 2018b). For this study, I used the element score assigned to each elementary public school within the New York City public school district.

Administrators' and teachers' views on effective leadership often aligns to student achievement and transformational leadership (Allen et al., 2015; Anderson, 2017; Boberg

& Bourgeois, 2016; Sun & Leithwood, 2017). To capture this relationship between teachers' perceptions of administrator leadership practices, an instrument, surveying teachers is appropriate for this study. The NYCDOE school survey obtains the perceptions of individual teachers and then compile those data into an element score that correlates to a rating.

Criterion-referenced test scores. To answer the research questions of this study, the second set of data that I retrieved pertain to student achievement proficiency percentages from the NYSED website. Student achievement is recorded as percentages in ELA and mathematics is appropriate to identify the proficiency level of students. The NYSE website contains percentages from the criterion-references test scores indicating students in Grades 3, 4, and 5 who have demonstrated minimal proficiency in ELA and mathematics. The data identified the number of students who obtained a Level 3 and a Level 4, which is considered proficient on the NYS Common Core Assessment for ELA and mathematics for 2016-2017 and 2017-2018 school years. The determination of proficiency is established by the NYSED under the legislative guidelines of the NYCDOE and accordingly, was be the operational definition for minimal proficiency within the study.

Data Analysis Plan

To analyze the results of this study, I used two one-way analysis of variance (ANOVAs) to determine significance of relationship between the independent variable, teachers' perceptions of transformational leadership practices of administrators and the dependent variable, students' academic achievement within diverse urban schools for

school year 2017-2018. The first one-way ANOVA answered Research Question 1 for the independent variable, teachers' perceptions and the dependent variable, ELA proficiency level. The second one-way ANOVA answered Research Question 2 for the independent variable, teachers' perceptions and the dependent variable, mathematics proficiency level.

I used SPSS 24.0 to perform the regression statistical analysis that includes descriptive statistics, standard deviations, and percentages. I created tables, charts, and graphs that illustrate my findings. The level of significance is $p < .05$. If the observed significance was $< .05$, the null hypothesis was rejected reflecting the data supporting the research hypothesis. Once the data were transferred into SPSS 24.0, I analyzed the descriptive statistics to identify any missing data. Data screening allowed me to check for possible missing responses, coding errors, normality, linearity, and outliers using SPSS 24.0. The main purpose of data screening was to improve the statistical methodology of the study and to help to avoid drawing any false conclusions from the data. For the study, I used SPSS 24.0 to screen the variables effective school leadership level and student achievement level in ELA and mathematics. I used the effective school leadership rating score and the ELA and mathematics proficiency percentage from each elementary public school to answer the following research questions:

RQ1: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in English language arts?

H₀1: There is no significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in English language arts, as measured by New York State assessment scores.

H_a1: There is a significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in English language arts, as measured by the New York State assessment scores.

RQ2: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in mathematics?

H₀2: There is no significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in mathematics, as measured by the New York State assessment scores.

Threats to Validity

For an instrument to be valid it must accurately measure the concept intended for measure (Lambert, 2013). This quantitative study addressed three measurements of validity: external, internal, and construct validity. External validity is the extent the

study's results provides conclusions a researcher can make upon other populations.

There is no known threat to external validity in this study because the data consist of public data obtained from New York City public school teachers. Internal validity is the extent in which a relationship exists between the independent and dependent variable.

The research in this study examined teachers' perceptions of administrators' leadership practices and the effect on student achievement. Teachers not responding honestly to the survey concerning administrators' leadership can lead to a threat in internal validity. The NYC school survey measures school leadership practices is thoroughly tested for construct and discriminant reliability; has been established as a valid and reliable instrument; and is assumed to have construct validity, content validity, and criterion validity for this study. Selecting all elementary schools in New York City addresses measurement validity. Based on the research, the literature review helped me to mitigate empirical validity threats.

Validity of the survey is static as the survey continues to change, is constantly updated, and periodically the wording is reformed to make it more conducive for all teachers to answer, no matter what their assignment is within the school. One major change that has occurred over the years is the way the survey is administered. In 2007, the first administration of the survey, teachers completed it by paper and pencil; now it is performed online, making it easier and faster to achieve an element score. The questions are aligned to determine how effective administrators lead their schools according to teachers' perceptions.

The survey addresses topics such as a share decision-making process among staff, a clear school vision, identification of programs being used and how the programs connect to the school vision, and feedback from staff (NYCDOE, 2018b). The school survey provides a snapshot of teachers' perceptions in each school because not all teachers participate in the survey. Currently the survey is a better indication and is more precise of what effective transformational leadership practices are, according to teachers' perceptions, than instruments previously used.

Prior to the implementation of the school survey, schools received a report card grade. The grade was based on a Quality Review that was conducted by an experienced educator assessing the school over 3 days. Although the evaluator followed a rubric, the score was subjective and only based on what was observed over a short span of time. Starting school year 2016-2017, the Quality Review and the school survey became a weighted average of the school's element score. The effective school leadership survey and Quality Review, indicators 1.3, 3.1, and 5.1 were each weighted for a total of 100%. Therefore, the school leadership score is based on teachers' perceptions of leadership and the observations made by an experienced educator which make it a more valid representation of an administrators' transformational leadership.

Ethical Procedures

Public data released from the NYCDOE was not altered. There were no active participants indicating informed consent to access and analyze data was not required. The ethical concerns for this study are minimal because there was no actual human contact with participants and all participants remain anonymous. I did not gather any

personal information of individuals, nor individual school demographics. The school leadership score, the number of participants, and the percentage of participants from each school was copied from the 2017-2018 School Quality Guide- Online Edition and placed into a spreadsheet software package. Included in this document are each school's proficiency scores in ELA and mathematics from the NYSED data site that is publicly available. To protect the identity of each school's data were coded. The collection of these data followed ethical and IRB guidelines approved by Walden University. Walden University requires candidates to have an approved Institutional Research Board (IRB) application. The Walden University IRB approval number is 05-13-19-0614182.

Summary

In this chapter, I included the research design and rationale for the study, setting, population, sampling and sampling procedures, instrumentation, data analysis, threats to validity and ethical procedures. The data collection plan consisted of using archival data from the NYCDOE school survey, to disaggregate the effect of school leadership and ELA and mathematics assessment scores from the NYSED website. I analyzed the relationship to determine significant differences between teacher perceptions of transformational leadership practices of school leaders and student academic achievement in ELA and mathematics by using two one-way ANOVAS. The results of this study identified the relationship between teachers' perceived rating of their administrator and student academic achievement in ELA and mathematics. In Chapter 4, I explain the analysis, results, and findings of the research questions.

Chapter 4: Results

The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics in diverse urban elementary schools. I investigated administrators' transformational practices from the perspective of the teacher and the relationship on student achievement based on the New York State Common Core Assessment. The independent variable was teacher ratings of principals' transformational leadership practices. The dependent variable was students' state test scores as measured by the NYSED. The research questions directing the study were as follows:

RQ1: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in English language arts?

H₀1: There is no significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in English language arts, as measured by New York State assessment scores.

H_a1: There is a significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School

Survey, and student achievement in English language arts, as measured by the New York State assessment scores.

RQ2: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in mathematics?

H₀2: There is no significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in mathematics, as measured by the New York State assessment scores.

H_a2: There is a significant relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools, as measured by the New York City Department of Education School Survey, and student achievement in mathematics, as measured by the New York State assessment scores.

In Chapter 4, I include an explanation of the data collection process, the statistical analysis, treatment, and the results. I also identify the findings of two one-way ANOVAS for the variables stated above. I conclude the chapter with a summary of the results of the study to provide information to transition to Chapter 5 where I present a discussion, conclusions, and recommendations of the findings.

Data Collection

I used public data from the NYCDOE school leadership survey and the NYSED student proficiency percentages from the ELA and mathematics state assessments. I compiled the data onto SPSS 24. Because I only used public data, no treatment or intervention fidelity was necessary.

Data Analysis

I first created a Microsoft Excel document to disaggregate the leadership score for each elementary school obtaining a school leadership survey result and an ELA and mathematics proficiency score. The survey result was obtained from the NYCDOE school survey, and I only focused on the school leadership score for each elementary school. I then obtained the ELA and mathematics proficiency percentage for each school from NYSED website. Compiling all the data onto an Excel file took several weeks. Originally there were 611 elementary schools that I found on the NYCDOE site participating within the school leadership survey, but some schools were missing a leadership score and/or state proficiency scores. The missing records were attributable to school closures and other missing data such as an insufficient number of teachers responding to the survey. As a result, I deleted these schools' entries for not containing the information required to answer the research questions, which left a total of 595 schools participating in the study.

After all the data were compiled onto an Excel document, I copied and pasted it into SPSS 24.0. During the initial screening of the data, I noticed that the independent variable of teachers' perceptions was written as a scale number. When conducting an

ANOVA test, the independent variable must be a categorical variable. Therefore, I recoded the former scale numbers to categorical variables for SPSS to read the teacher leadership scores (see Table 2). When all the data were transported to SPSS 24.0, I was able to analyze and compare the means between the school leadership survey results and students' proficiency in ELA, followed by student proficiency in mathematics.

Table 2

Recoded Variables

Former scale numbers	Categorical variables
4.99-4.00	5
3.99-3.80	4
3.79-3.00	3
2.99-2.00	2
1.99-1.00	1

Note. Numbers based on the *Framework and School Survey Scoring Technical Guide 2016-2017* by the New York City Department of Education, 2018.

The effective school leadership element from the NYCDOE survey identified how teachers perceive school administrators. The data were listed as an element score and given a rating. Because SPSS 24.0 does not acknowledge a scale score for an independent variable, I changed the scale score to a nominal score. A further modification I made was to add a group, rated as *very good*, with an element score of 3.80 to 3.99 (see Table 2). The rationale for adding the group was that 349 of 595 schools were in the 3.00 to 3.99 range. It was important to narrow the number of schools in each group to identify the schools with highly effective administrators. Adding the group allowed me to focus specific attention to the higher-ranking schools within the higher range. As a result, effective school leadership for this study is evident in school

leaders with a coefficient of 3.8 or higher and is identified in schools that are in Groups 4 and 5.

Results

For this study, I conducted two one-way ANOVAs to test the hypotheses. Presented in the following sections are the results of the statistical tests of the null hypotheses from each research question. I also provided information of the degree by which resulting differences were significant to this study.

Research Question 1

The first research question I sought to answer was “What is the relationship between teachers’ perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in English language arts?” The first step in understanding the results of the data was to generate and interpret a descriptive table from SPSS 24.0. Table 3 contains statistics for each of the five groups of the independent variable. The schools’ ELA mean score increased from all the groups for teachers’ perspectives of administrators’ transformational leadership practices (see Table 3), indicating the higher the leadership survey score the higher the ELA mean score.

Table 3

Descriptive Table for ELA Scores

Group	No. of schools	<i>M</i>	<i>SD</i>
Group 1	2	39.5	7.778
Group 2	91	39.8	18.303
Group 3	274	40.92	17.275
Group 4	75	48.55	19.439
Group 5	153	56.2	18.888
Total	595	45.63	19.282

Note. Descriptive data results retrieved from SPSS 24.0.

To test the assumption of homogeneity of variances I used Levene's test to determine if the variances between groups for the dependent variable are equal. The test was not statistically significant ($p = .218$), indicating the variances are equivalent and the assumption of homogeneity of variances has not been violated. Once the homogeneity of variances were established, I interpreted the statistical significance of the one-way ANOVA test. The ELA proficiency percentage was statistically significantly different for different levels of the teacher leadership score, $F(4, 590) = 20.522, p < .0005$; therefore, the null hypothesis was rejected. The strength of the relationship between the ELA proficiency score and teachers' perceptions of administrators' transformational leadership was strong. The bar graph in Figure 1 shows the survey rating categorical score and the relationship to the proficiency ELA mean score. Higher categorical scores are associated with higher mean ELA scores.

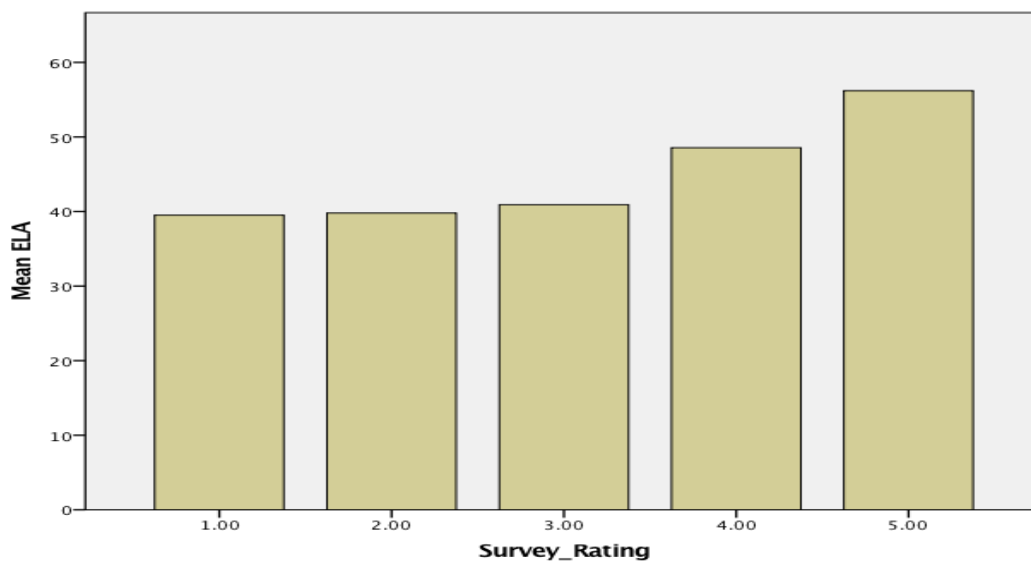


Figure 1. Bar graph of relationship between ELA proficiency score and school leadership score.

To determine where the differences in the data were, I investigated further by conducting a Tukey post hoc test. The Tukey post hoc test provided the statistically significant level for each comparison group. For this study, I chose to analyze the positive mean differences (see Table 4), because higher achievement scores are associated with greater leadership scores. The results from the Tukey Post Hoc Test (see Table 4), indicated that the 5.00 group (*excellent* leadership rating) had a higher ELA achievement score than each of the other groups (*very good*, *good*, *fair*, and *poor* leadership ratings). For instance, there was an increase in ELA student academic achievement between the 3.00 group, which had a leadership rating of *good* ($M = 40.9$, $SD = 17.3$) and the 5.00 group, which had a leadership rating of *excellent* ($M = 56.2$, $SD = 18.9$). The mean increase of 15.3, 95% CI [10.3, 20.3] was statistically significant ($p = .000$). The results indicated the higher the transformational leadership score of

administrators in economically diverse urban elementary schools, the greater the student academic achievement level in ELA.

Table 4

ELA Tukey Post Hoc Test

Groups		Multiple Comparisons			95% CI	
(I)	(J)	MD	SE	Sig.	LB	UB
3.00	1.00	1.416	12.864	1.000	33.787	36.62
3.00	2.00	1.114	2.93	.987	-4.89	7.11
4.00	1.00	9.047	12.988	.957	-26.49	44.58
4.00	2.00	8.744	2.827	.018	1.01	16.48
4.00	3.00	7.631	2.362	.011	1.17	14.09
5.00	1.00	16.696	12.901	.695	-18.60	52.00
5.00	2.00	16.394	2.400	.000	9.83	22.96
5.00	3.00	15.280	1.829	.000	10.27	20.29
5.00	4.00	7.649	2.555	.024	.66	14.64

Note. CI = Confidence Interval; LB = Lower Bound; UB = Upper Bound.

Research Question 2

The second research question I sought to answer was: What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in mathematics? I first generated a descriptive table from SPSS 24.0, focusing on the dependent variable, student academic achievement in mathematics. Table 5 shows how the schools' mathematics mean score increased from Group 1 to Group 2 to Group 3 to Group 4 to Group 5 for teachers' perspective of administrators' transformational leadership practices, indicating the higher the leadership survey score the higher the mathematics mean score.

Table 5

Descriptive Table for Mathematics Scores

Group	No. of schools	<i>M</i>	<i>SD</i>
Group 1	2	31.0	15.556
Group 2	91	38.59	19.887
Group 3	274	39.99	19.293
Group 4	75	49.15	21.183
Group 5	153	58.27	20.429
Total	595	45.60	21.443

Note. Descriptive data results retrieved from SPSS 24.0.

I tested the assumption of homogeneity of variances using Levene's test to determine if the variances between groups for the dependent variable are equal. The test was not statistically significant ($p = .531$), therefore, the variances are equivalent and the assumption of homogeneity of variances has not been violated. The statistical significance of the one-way ANOVA test identified the mathematics proficiency percentage for each school was statistically significantly different for different levels of the teacher leadership score, $F(4, 590) = 24.600, p < .0005$; therefore, the null hypothesis was rejected. The relationship between the mathematics proficiency score and teachers' perceptions of administrators' transformational leadership was strong. The bar graph in Figure 2 shows the survey rating categorical score and its relationship to the proficiency mathematics mean score, higher categorical scores are associated with higher mean mathematical scores.

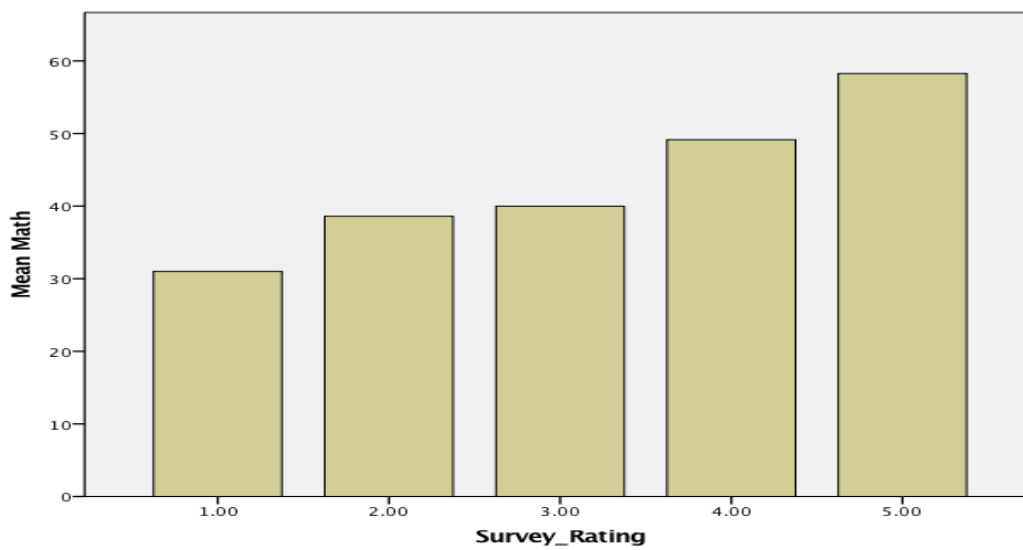


Figure 2. Bar graph of relationship between mathematics proficiency score and school leadership score.

Next, I conducted a Tukey post hoc test to determine the differences and the statistically significant level between each comparison group (see Table 6). Because my study focused on higher student achievement levels and transformational leadership skills, I chose to analyze the positive mean differences (see Table 6). The Tukey Post Hoc Test indicated that the 5.00 group (*excellent* leadership rating) had a higher mathematics achievement score than all the other groups (*very good*, *good*, *fair* and *poor* leadership ratings). For instance, there was an increase in mathematics achievement between the 3.00 group, which had a leadership rating of *good* ($M = 39.9$, $SD = 19.3$) and the 5.00 group, which had a leadership rating of *excellent* ($M = 58.3$, $SD = 20.4$). The mean increase of 18.3, 95% CI [12.8, 23.8] was statistically significant ($p = .000$). Therefore, the results indicated the higher the transformational leadership score of

administrators in economically diverse urban elementary schools, the greater the student academic achievement level in mathematics.

Table 6

Mathematics Tukey Post Hoc Test

Groups		Multiple Comparisons			95% CI	
(I)	(J)	MD	SE	Sig.	LB	UB
3.00	1.00	8.989	14.136	.969	-29.69	47.67
3.00	2.00	1.396	2.410	.978	-5.20	7.99
4.00	1.00	18.147	14.271	.709	-20.90	57.20
4.00	2.00	10.553	3.106	.007	2.05	19.05
4.00	3.00	9.158	2.596	.004	2.05	16.26
5.00	1.00	27.275	14.177	.306	-11.52	66.07
5.00	2.00	19.681	2.637	.000	12.47	26.90
5.00	3.00	18.285	2.010	.000	12.78	23.79
5.00	4.00	9.128	2.808	.011	1.45	16.81

Note. CI = Confidence Interval; LB = Lower Bound; UB = Upper Bound.

Summary

The purpose of the quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student academic achievement in ELA and mathematics in diverse urban elementary schools. Chapter 4 included the results from the 2017-2018 New York City school survey, school leadership component, and the 2017-2018 New York State ELA and mathematics assessment. I used a one-way ANOVA statistical test to analyze the research questions. The results of Research Question 1 were statistically significant identifying a relationship between teachers' perceptions of transformational leadership and student academic achievement in ELA. In Research Question 2 a relationship between teachers' perceptions of transformational leadership and student academic achievement in mathematics was also

statistically significant. Additionally, I conducted the Tukey Post Hoc test to analyze where the differences in the data occurred and to provide the statistically significant level for each comparison group. The Tukey Post Hoc test indicated a significant relationship between the transformational leadership rating of administrators in economically diverse urban elementary schools and the academic proficiency scores of students in ELA and mathematics.

A revealing finding was that data from Group 4's Tukey Post Hoc test were statistically significant. The data were only significant when compared to a lower group, such as Group 4 to Group 2, but never statistically significant when compared to Group 1. In Chapter 5, I summarize and interpret the key findings, limitations of the study, recommendations for future research, implications for positive social change, and a final conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

In Chapter 5, I present an interpretation of the findings, limitations of the study, recommendations for further research, and implications for positive social change. I examined data on how teachers perceive administrators' transformational leadership (independent variable) and student achievement (dependent variable) in economically diverse elementary schools. The purpose of this quantitative study was to examine the relationship between teachers' perceptions of administrator leadership practices and student achievement in ELA and mathematics within diverse urban elementary schools. The research questions guiding the study allowed me to examine whether a relationship existed between teacher-rated transformational leadership practices of administrators and student academic achievement in ELA and mathematics. Although research exists on the relationship between teachers' perceptions of administrators and student achievement using data from the Multifactor Leadership Questionnaire, I used secondary public data from the NYCDOE school survey (2018b) and data from the NYSED (2018) website for this study.

Interpretation of the Findings

A transformational leader creates a bond between the leader and followers that increases commitment, involvement, and performance (Bass et al., 2003). A transformational leader is an effective leader and (a) moves followers from personal self-interests to idealized attributes and behaviors, (b) provides inspirational motivation and intellectual stimulation, and (c) engages in individualized consideration. In addition to the theory of transformational leadership's focus on leading individuals, it also addresses

the role of leadership in capacity-developing practices (Sun & Leithwood, 2017).

Pertinent to my findings, by developing capacity for student success, administrators and teachers collaborating with one another can assist in success of students (see Bush & Glover, 2014). Thus, transformational leadership in a school setting can include positive interactions between administrators and teachers which have been shown to produce an effective school culture (Ross & Cozzens). In this way, an administrator's leadership skills can directly affect student achievement. Therefore, I sought to assess the role of leadership in student success using the theory of transformational leadership to assist me with interpretation. In this section of the chapter, I will show how the findings from my study align to the theory of transformational leadership.

Research Question 1

My first research question was “What is the relationship between teachers’ perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in ELA?” To answer the research question, I conducted a one-way ANOVA to test the hypothesis. Based on this analysis, I accepted the alternative hypothesis, meaning there is a significant relationship between teachers’ perceived rating of transformational leadership practices of administrators and student achievement in ELA. I also conducted a Tukey Post Hoc Test indicating the 5.00 group (*excellent* leadership rating) had a higher ELA achievement score than each of the other groups (*very good*, *good*, *fair*, and *poor* leadership ratings). There was an increase in ELA student academic achievement between the 3.00 group having a leadership rating of *good* and the 5.00 group, which had

a leadership rating of *excellent*. The mean increased and was statistically significant; therefore, the higher the transformational leadership score of administrators, the greater the student academic achievement level in ELA.

The findings of the study indicated that the higher a teacher rated administrators' transformational leadership practices, the more proficient students were in ELA. My findings support previous literature on the role of transformational leadership on student achievement. For example, in studies conducted by Hauserman and Stick (2013) and McKinney et al. (2015), teachers perceiving administrators as having highly effective transformational skills provided positive responses about local leadership and the school culture. However, teachers perceiving administrators as having low transformational skills spoke negatively about local school leadership and the culture. Positive culture may lead to higher morale. In previous research, teachers' perceptions of administrators' leadership practices were found to influence the morale within a building and in turn affected student achievement (McKinney et al., 2015; Pugh et al., 2012). Thus, higher student achievement in my study may be due to a positive culture and higher morale, both outcomes of transformational leadership.

Research Question 2

My second research question was "What is the relationship between teachers' perceived rating of transformational leadership practices of administrators in economically diverse urban elementary schools and student academic achievement in mathematics?" To answer the research question, I conducted a one-way ANOVA to test the hypothesis. Based on the analysis, I accepted the alternative hypothesis, meaning that

there is a significant relationship between teachers' perceived rating of transformational leadership practices of administrators, and student achievement in mathematics. I also conducted a Tukey Post Hoc test to determine the differences and the statistically significant level between each comparison group. The 5.00 group (*excellent* leadership rating) had a higher mathematics achievement score than all the other groups (*very good, good, fair* and *poor* leadership ratings). There was an increase in mathematics achievement between the 3.00 group having a leadership rating of *good* and the 5.00 group, which had a leadership rating of *excellent*. The higher the transformational leadership score of administrators in economically diverse urban elementary schools, the greater the student academic achievement level in mathematics.

The findings of the study indicate that the higher a teacher rated administrators' transformational leadership practices the more proficient students were in mathematics. This is supported by Quin et al. (2015), who found that principals in high-performing schools exhibited higher levels of Kouzes and Posner's leadership practices, whereas principals in low-performing schools had lower levels of effective leadership practices. Additionally, inspiring a shared vision and challenging the process showed a significant difference between high- and low-performing schools (Quin et al., 2015). Dumay, Boonen and Damme (2013) also revealed that the stronger administrative leadership and teacher collaboration relationship, the greater teachers' collective efficacy were, which led to increased learning in mathematics. Therefore, an administrators' leadership practices directly influence the school environment and student academic achievement,

and teachers' perception of administration has a direct relationship on student mathematical achievement in economically diverse elementary schools.

Prior research suggested that a relationship between transformational leaders able to transform followers by motivating professional performance at high levels (Burns, 1978) and establishing a positive school culture, which leads to student achievement. The results from my study support early research on transformational leadership by providing evidence that principals using transformational leadership practices as perceived by teachers led schools where students exhibited increased academic achievement scores in ELA and mathematics. Transformational leadership is a major factor in employees' perceptions of an organization's culture and climate (Kim & Yoon, 2015). Transformational leadership directly relates to an administrators' influence on students' academic achievement (Leithwood & Sun, 2018). The NYCDOE (2018b) school leadership survey contained statements about the effectiveness of the administrator and the culture of the school, which correlates with transformational leadership and student achievement. The next section contains limitations of the study.

Limitations of the Study

This quantitative study provided evidence of the relationship between elementary school teachers' perception of administrator transformational leadership practices in diverse elementary schools for the relationship to ELA and mathematics achievement. A quantitative study allows numerical data to be analyzed for a larger population. However, inherent of quantitative studies, limitations or weaknesses may occur when conducting and analyzing a study (Babbie, 2017). A limitation of the study inherent to the

quantitative approach was respondents not having the opportunity to elaborate upon answers, explain choices on the Likert-style survey, or provide any additional information. Interviews or short responses of teachers' perceptions of administrators may have added insightful information to the study. For instance, the researcher may be able to identify whether a response to a question was personally or professionally motivated.

Another limitation of the study was the length of time a teacher was employed within the school. Newer teachers may not know administrators well enough to rate leadership practices. As a result, the response rate in schools having more inexperienced teachers may have adversely effected statistical data.

A further limitation of the school survey was most respondents were females. According to The Research Alliance for New York City Schools, the gender proportion of teachers in 2015 -2016 was 76.6% females and 23.4% males (New York University, 2019). Therefore, most respondents being females, especially in elementary schools, may pose gender bias within the study.

Although the data in the study identified a relationship in diverse urban elementary schools in the Northeast it can be generalized to schools in other urban districts. Bass (1999) and Burns's (1978) transformational leadership paradigm stated an effective leader motivates followers from self-interests to idealized attributes and behaviors, inspirational motivation, intellectual stimulation, and individualized consideration. Therefore, the findings of the study relate to other school leaders, in similar diverse school districts. In the next section, I make recommendations for future research.

Recommendations

In the study I presented findings of effective transformational leadership practices, as perceived by teachers in diverse elementary schools and the relationship to students' proficiency level in ELA and mathematics. The results identified a significant relationship between teachers' perception of administration and student ELA and mathematical achievement. Therefore, the findings suggest a need to identify effective leadership behaviors positively influencing student achievement. Below I describe several recommendations.

A recommendation, based on the findings of the study, is for administrators to create local, school-specific surveys for teachers to complete facilitating administrators self-reflecting about personal leadership practices based on the teachers' responses. McCarley et al. (2016) examined the relationship between teachers' perceptions of administrators' transformational practices. The implications from McCarley et al.'s study suggested teachers periodically participate in surveys about the school administrator's practices. A second implication was for district leaders to also administer surveys to future school administrators to assess future administrators transformational leadership characteristics. The feedback from the surveys may assist current administrators and district leaders in identifying transformational leadership behaviors according to the staff and future administrators that may lead to an increase in collaboration and academic achievement (Allen et al., 2015). The surveys could be administered once or twice a year at the beginning of the year and middle of the year to teachers, so administrators' can identify teachers' perceptions of school leadership that include (a) enabling others to act,

(b) modeling the way, (c) inspiring a shared vision, (d) challenging the process, and (e) encouraging the heart (Kouzes & Posner, 2009). Understanding teachers' perceptions early in the school year, may help administrators' improve school climate (Allen et al., 2015), trust (Anderson, 2017; Zeinabadi, 2013) and job satisfaction (Dutta & Sahney, 2015; Kieres & Gutmore, 2014; Menon, 2014), which will benefit the teachers, the students and the school. Administrators who know their strengths and weaknesses, by being attuned to the staff's individual needs, may help improve the school culture.

A future recommendation would be to increase professional development for school leaders, and intervisitation between high achieving schools (Groups 4 and 5) and lower achieving schools (Groups 1 and 2). Munoz and Branham (2016) studied the effect of PLCs and found that they lead to other's learning and student achievement.

Administrators from schools in this study classified as high achieving (Groups 4 and 5) could host PLCs within assigned schools for lower achieving schools (Groups 1 and 2). The goal for administrators is to obtain new knowledge to be implemented within assigned schools.

Besides conducting intervisitation between schools, administrators are encouraged to work in cohorts mentoring one another. Once the results from the leadership survey are analyzed, cohorts could be formed for administrators to support and advice one another. School leaders may be able to work in teams and create a mentoring program (McCarley et al., 2016) differentiated according to the specific components of the leadership survey. As a result, administrators may be able to advice one another on the

specific components of the survey by participating in various book clubs, reviewing the literature, and participating in ongoing professional learning hosted by the NYCDOE.

Another future recommendation would be to collect qualitative data investigating excellent-leadership rated schools to discover ways helping increase leadership practices of lower-rated schools. Collecting qualitative data would provide an in-depth understanding of how and why a relationship occurs (McCarley et al., 2016). Hearing teachers' perceptions would give valuable insight into the cohesiveness of a school and identifying personal strengths and weaknesses. Asking teachers how administrators work with their staff to create a positive climate, may help other administrators by giving them insight into what teachers want from administrators.

Implications

The results of the study not only have implications for teachers, administrators, and district leaders, but also for anyone interested in school leadership and student achievement at the state level. As a result of the study, positive social change may occur by district leaders educating and developing administrators to exhibit transformational leadership skills. On-going professional development will help administrators learn transformational practices to collaborate, motivate, and improve the school's culture and climate.

Administrators need on-going professional learning from district leaders about researched transformational leadership behaviors for a positive school culture. Administrators need to learn how to develop relationships to motivate staff. A motivated teacher has clear, concise direction, trust and is able to identify what is of value to the

school (Sergiovanni, 2007; Shahrill, 2014), which leads to student achievement (Quin et al., 2015; Shatzer et al., 2014). Therefore, district leaders can analyze the results of the leadership survey for each of their schools in order to offer appropriate professional development, workshops, extensive leadership academies, book clubs, and leadership conferences.

Participating in continuous professional development may assist administrators with understanding the climate of the school and demonstrating self-efficacy to create a positive school culture. Communication and clear expectations are other attributes that administrators can learn to effectively demonstrate. Wang's et al. (2016) study on administrators' leadership behaviors, school culture, and climate related to student achievement supports the findings of my study. School administrators set the tone affecting the culture of the building, positively or negatively. A transformational leader works with teachers to raise morale and personal motivation (Burns, 1978), District leaders can offer administrators professional development on optimal attributes that will increase student academic achievement.

Conclusion

Administrators frequently do not readily self-reflect upon leadership behaviors or realize how actions affect teachers, students, parents and student achievement. The core reason for the study was to identify whether transformational leadership practices influence achievement. The results of the study indicated a significant relationship between teachers' perceptions of administrators and student achievement in ELA and mathematics in economically diverse schools. The findings align to the literature review

on transformational leadership (Burns, 1978; Bass, 1999) and the theoretical framework based on Burns's theory. The Post Hoc Test from the study revealed that the 5.00 group (*excellent* leadership rating) had the highest ELA and mathematics student achievement scores. The findings indicated the higher a teacher rated their administrator's transformational leadership practices the higher the school's achievement score was in ELA and mathematics. As a result of the study, positive social change may occur by encouraging administrators to become mindful of the influence of transformational leadership practices to motivate, collaborate, and improve school culture and increase student academic achievement in economically diverse urban environments.

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Appendix: School Leadership Scores and NYSED Proficiency Percentages

School Code	Percent of Participants	Effective School Leadership	NYSED ELA Proficiency Percentage	NYSED Math Proficiency Percentage
1000	100	4.09	67	58
1001	95	4.25	55	58
1002	89	3.04	40	35
1003	100	4.07	58	58
1004	96	3.94	33	33
1005	92	3.21	74	77
1006	89	3.61	31	34
1007	95	3.91	38	31
1008	93	3.63	65	67
1009	65	3.84	67	56
1010	96	4.31	47	48
1011	93	3.67	38	18
1012	79	2.9	54	55
1013	68	4.06	62	72
1014	68	3.61	73	78
1015	68	3.25	91	91
1016	88	4.29	72	73
1017	51	2.54	67	65
1018	83	4.46	89	89
1019	93	4.27	86	87
1020	100	4.54	61	78
1021	73	4.06	47	41
1022	60	3.77	82	82
1023	94	3.95	100	99
1024	61	4.05	88	85
1025	71	3.12	45	42
1026	86	3.92	66	67
1027	100	3.06	81	90
1028	95	4.5	82	88
1029	100	4.34	95	92
1030	100	4.02	65	67
1031	51	2.66	84	85

(table continues)

School Code	Percent of Participants	Effective School Leadership	NYSED ELA Proficiency Percentage	NYSED Math Proficiency Percentage
1032	68	3.88	87	87
1033	89	3.58	78	78
1034	86	4.1	77	79
1035	74	2.71	85	87
1036	97	3.17	88	85
1037	76	3.29	91	87
1038	89	4.07	70	80
1039	100	4.47	88	89
1040	100	4.83	81	86
1041	82	3.75	49	44
1042	100	3.64	67	62
1043	87	3.68	83	86
1044	100	3.32	22	23
1045	100	3.46	62	66
1046	91	3.38	87	87
1047	83	2.83	85	90
1048	100	2.54	27	23