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Patricia Gallante

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Eric Riedel, Ph.D.

Abstract

Principal Leadership Behaviors and Teacher Efficacy

by

Patricia Gallante

MA, Kean University, 1995

BA, Kean University, 1982

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

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Abstract

The attrition rate of teachers in an urban/suburban school district in a northeastern state caused schools to fail to attain annual yearly progress. To reverse this problem, administrators must understand the importance of their leadership and teacher efficacy and the need to nurture teachers to increase student performance. The purpose of this sequential mixed-methods study was to determine whether a relationship existed between leadership and efficacy. Total-population sampling was used to obtain 19 elementary and middle teachers who completed two surveys to examine the relationship between principals' behaviors (human relations, trust/decision making, instructional leadership, control, and conflict) and teacher efficacy (student engagement, instructional strategies, and classroom management). Survey data were analyzed using Pearson's product-moment correlations. In addition, face-to-face interviews were conducted with 3 teachers who had 5 or fewer years of teaching experience. These data were analyzed using thematic analysis. Quantitative findings indicated significant relationships between instructional leadership with teacher engagement and conflict with teacher engagement. Themes, based on the integrated model of teacher efficacy, revealed connections with the principal and support, guidance, and structure provided by the principal. Principals must focus on leadership behaviors that may increase teacher efficacy. These endeavors may contribute to positive social change when school leaders support teachers, who, in turn support students in their educational challenges to increase academic performance.

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Table of Contents

List of Tables

Section 1: Introduction to the Study

According to the Commission on No Child Left Behind (2007), teacher quality is the single most important aspect related to student achievement. The commission's report goes on to say that credentials alone will not raise the quality or the effectiveness of teachers in the profession. Therefore, the commission recommended changing the method of assessing the quality of teachers by requiring all teachers to be highly qualified and effective teachers, not just highly qualified teachers.

Teacher efficacy has been a vital component of teacher effectiveness (Henson, Kogan, & Vacha-Haase, 2001). Tschannen-Moran and Woolfolk Hoy (2002) noted that, over the past 25 years, persuasive data have accrued regarding the positive association teacher efficacy has on students' motivation and achievement. Teacher efficacy is defined as "teachers' beliefs in their abilities to organize and execute courses of action necessary to bring about desired results" (Tschannen-Moran, Woolfolk-Hoy, & Hoy 1998, p. 22), and strong associations can be found between teacher efficacy, a deeper desire to teach, and a greater likelihood that teachers will not leave the profession. In this mixed-methods study, I examined the relationship between principal behaviors and teacher efficacy, as well as gathered information on teacher perceptions of this relationship.

Urban districts, such as the New Jersey district in which the current study was conducted, want to retain strong, efficacious teachers who are committed to the profession to be successful in increasing achievement in their underperforming schools. The urban/suburban district highlighted in this study is comprised of four schools that encompass Grades K–5, one middle school, and one junior high school. Two of the five have not made adequate yearly progress (AYP), based on the standards established by the

No Child Left Behind Act (NCLB, 2001). One of those schools failed to meet the NCLB standards for 2 years (from 2010-2012) and the other for 5 years (from 2007-2012). In this district, the attrition rate of teachers in the failing schools is much higher than in those schools that attained AYP. The high-attrition rate makes it difficult to maintain and develop effective teachers and improve student-achievement levels.

McEwan (2002) theorized that the capacity to ascertain and cultivate effective teachers is a prerequisite for the instructional leader. Therefore, the principals, especially those in the failing schools of this urban/suburban district in New Jersey, must be cognizant of which leadership behaviors help teachers believe that what they do makes a difference. Teachers must also be aware of which leadership qualities assist them in becoming the most effective teachers possible. How leadership behaviors may influence teacher efficacy will be discussed in Section 2.

Statement of the Problem

Current researchers have suggested that student performance depends on the effectiveness of the teacher (Kinsey, 2006). Kinsey (2006) noted "Administrative preparation programs must begin investing more time in making their candidates aware of the importance of teacher efficacy and the need to adequately nurture our new teachers in the profession" (p. 159). A gap exists in the knowledge about which leadership behaviors influence teacher efficacy.

According to the March 6, 2002 Federal Register, student success is determined by the chance that a student will attend a school that has highly qualified teachers and principals (p. 10166). This premise requires teachers to have a vision about what really affects student success, and teachers must be told consistently that the work they do is

vital (Di Giulio, 2004). Efficacious teachers are those who believe they will be a medium for student success (Di Giulio, 2004; Hansen, 2006). A teacher's sense of self-efficacy is consistently related to student achievement. If teacher self-efficacy is required to increase student achievement, researchers need to discover the qualities or behaviors of principals that can improve teacher efficacy. Those qualities and behaviors must be capitalized on and honed in principals in order to encourage every teacher to develop the highest sense of teacher efficacy possible. In this mixed-methods study, the quantitative portion examined the relationship between principal behaviors (the independent variable) and teacher efficacy (the dependent variable).

Rammer (2007) noted that NCLB placed performance requirements on schools, delineating serious penalties for schools that could not meet the requirements. Principals, as leaders of the school and the gatekeepers for performance standards, need to understand teacher efficacy and the influence administrators have on teacher efficacy. For these reasons, I chose to focus on principals' leadership behaviors in this study.

Nature of the Study

In this mixed-methods study, I attempted to discover whether a relationship existed between leadership behaviors of principals and teachers' self-efficacy in engaging students, strategizing instructional practices, and managing their classrooms. I chose to conduct a mixed-methods study to combine qualitative and quantitative results and to establish validity and credibility (Bryman, 2006). Woolfolk Hoy (as cited in Shaughnessy, 2004) stated that the concept of teachers' sense of efficacy "would benefit from more studies that use both qualitative and quantitative methodologies" (p. 155). Through this study design, I attempted to address that need.

Originally, I asked all teachers in the four elementary/middle schools in a single urban/suburban district in New Jersey who had fewer than 5 years of teaching experience to participate in the study. Teachers who had taught fewer than 5 years are still forming their sense of efficacy and can be influenced by principal leadership style and are also likely to be most at risk for attrition (Woolfolk Hoy, 2000). To obtain enough participants, I had to widen the criteria. The desired sample size was 30 teachers; however, the final sample size obtained was 19 teachers, half of whom had more than 5 years experience.

Participants completed the Teacher Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy (2001, previously called the Ohio State Teacher Efficacy Scale) and the Survey of Supervisory Behavior (SSB) developed by Bulach, Boothe, and Pickett (1999). Once surveys were completed, I obtained a purposeful sample of three teachers for interviews. I analyzed the surveys using Pearson's product-moment correlations and analyzed the interviews using thematic analysis.

Research Questions

The essential question of this study was: What are the correlations between leadership behaviors and teacher perceptions of self-efficacy? Specifically the quantitative portion of the study included the following subquestions:

RQ1. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement?

RQ2. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies?

RQ3. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management?

RQ4. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement?

RQ5. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies?

RQ6. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management?

RQ7. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement?

RQ8. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies?

RQ9. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management?

RQ10. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in student engagement?

RQ11. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies?

RQ12. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management?

RQ13. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in student engagement?

RQ14. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies?

RQ15. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management?

The qualitative portion of the study included the following questions:

RQ16. How do teachers describe the relationship between principals' behaviors in the human-relations domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ17. How do teachers describe the relationship between principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ18. How do teachers describe the relationship between principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ19. How do teachers describe the relationship between principals' behaviors in the control domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ20. How do teachers describe the relationship between principals' behaviors in the conflict domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

Research Hypotheses

Bulach et al. (1999) designed an instrument to measure behaviors principals practice and how those behaviors affect teachers. The instrument consists of five factors - human relations, trust/decision making, instructional leadership, control, and conflict - and I used these factors to develop the research hypotheses.

The following were the 15 hypotheses for this study:

H_{01}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement.

H_{a1}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement.

H_{02}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies.

H_{a2}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies.

H_{03}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management.

H_{a3}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management.

H_{04}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement.

H_{a4}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement.

H_{05}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies.

H_{a5}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies.

H_{06}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management.

H_{a6}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management.

H_{07}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement.

H_{a7}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement.

H_{08}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies.

H_{a8}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies.

H_{09}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management.

H_{a9}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management.

H_{010}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the control and their sense of efficacy in student engagement.

H_{a10}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in student engagement.

H_{011}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies.

H_{a11}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies.

H_{012}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management.

H_{a12}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management.

H_{013}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict and their sense of efficacy in student engagement.

H_{a13}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in student engagement.

H_{014}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies.

H_{a14}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies.

H_{015}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management.

H_{a15}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management.

I used SPSS to analyze the results of the TSES. I used the Pearson product-moment correlation to measure relationships between leadership behaviors and teacher-efficacy scores. The qualitative data analysis employed the open-coding method to code for themes describing the relationship between each leadership behavioral domain (human relations, trust/decision making, instructional leadership, control, and conflict) and teacher self-efficacy (engaging students, strategizing instructional practices, and managing classrooms). This analysis provided the foundation for the narrative and descriptive portion of the study. I also employed data triangulation, member checking, and clarification of researcher bias to increase confidence in the findings.

Purpose of the Study

The purpose of this mixed-method study was to ascertain the leadership behaviors associated with the development of personal teacher efficacy. The predictor variables in this study were the leadership behaviors displayed by principals: trust, human relations, conflict, control, and instructional leadership. The outcome variables in this study were the perceived effect those behaviors have on personal teacher efficacy (engaging students, strategizing instructional practices, and managing classrooms; Tschannen-Moran &Woolfolk-Hoy, 2001). Little is known about the connection between principal's

behaviors and a teacher's sense of efficacy (Elliot, 2000; Hipp, 1996; Shaughnessy, 2004; Staggs, 2002). I examined the behaviors of principals that are associated with teachers' self-efficacy beliefs.

Theoretical Framework

Teacher Efficacy

Student success depends on effective teachers (Ashton & Webb, 1986). Two of the four schools from the urban/suburban district highlighted in the study have not made AYP based on the standards established by NCLB. It is imperative to find ways of improving teacher efficacy. Using the wealth of information about the construct of teacher efficacy, Tschannen-Moran et al. (1998) recognized the need to make sense of the work already published. I used the integrated model of teacher efficacy developed by Tschannen-Moran and Woolfolk-Hoy (2001) in this study. The Tschannen-Moran model of teacher efficacy has three components: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management.

Leadership Behaviors

Efficacy in student engagement starts with the belief that all children can learn (Guskey, 1988). An efficacious teacher does not cease to engage the weak student (Ashton & Webb, 1986). Efficacious use of instructional strategies includes using different types of strategies, adapting lessons, facilitating learning, and attempting new techniques (Gibson & Dembo, 1984; Guskey, 1988; Ross, 1992). The third and final component of teacher efficacy is classroom management. Efficacious teachers create an atmosphere that is beneficial to the needs of all learners by being prepared and systematic, while adapting to the needs of the learner (Allinder, 1994).

The efficacious teacher is also able to use supervision techniques that encourage students to be more self-sufficient (Ross, 1992). The ways principal leaders influence the development of teacher efficacy are not well understood. Bulach, Boothe, and Pickett (2006) observed that although many aspects of leadership have been studied in relationship to teacher efficacy, few studies offered results that would allow principals to develop their leadership behaviors. The authors also noted that many studies were based on principal self-reports and thus may have resulted in an overly positive response set. Bulach et al. (2006) constructed a model of principal leadership based on teacher ratings of principals that targets five major areas of principal behavior: human relations, trust/decision making, instructional leadership, control, and conflict.

According to numerous researchers (Harrill, 1990; Harrison, 1993; Heller, 2002; Sass, 1989) behaviors in the human-relations area, such as caring and interpersonal communication skills, are central to good leadership. Trust/decision making is another factor that connects to leadership abilities. If teachers feel the principal cannot make a good decision, then it follows that teachers will not trust them (Bulach et al., 2006). Instructional leadership is another important influence on teacher efficacy. According to Bulach, Berry, and Williams (2001), less than 50% of teachers surveyed felt principals were aware of what was happening in the classroom and able to provide them with positive feedback. Control is another aspect of principal behavior that may have an effect on teachers. When principals talk about *my* school and *my* teachers, it sends a message that the principal owns the school. Teachers resent this and feel the principal has an inflated sense of self. The final area included in the model of principal behavior is conflict. Principals are quite likely to avoid conflict. Glickman (2002) noted that if

principals are going to make changes and move forward, they must be prepared to address conflict. Furthermore, principals need to value teachers, yet call them to higher standards when a behavior needs to be changed (e.g., being consistently late to work).

Because the local school district in this study has a high teacher-attrition rate and two of the four schools have not met NCLB requirements, educators need to look for ways to improve teacher retention and student outcomes. Teacher efficacy has been linked to teacher retention (Brown & Wynn, 2009) and student performance (Ashton & Webb, 1986). Therefore, I explored ways principal leadership influences teacher efficacy in engaging students, strategizing instructional practices, and managing classrooms.

Definition of Terms

The following definitions apply to this study:

Leadership behaviors fall into five major domains, denoted by the SSB (Bulach et al., 1999).

1. Positive *human relations* include skills such as calling people by name, using eye contact, having a caring attitude, interacting with staff, and including staff in decision making (Bulach et al., 2006).
2. *Trust/decision making* is characterized by five factors: (a) character, (b) ability, (c) truthfulness, (d) confidentiality, and (e) predictability of others in the group (Bulach et al., 2006). Trust/decision-making skills include listening to both sides of a story, not gossiping, and carefully thinking through decisions (Bulach et al., 2006).
3. *Instructional leadership* skills involve vision, knowledge of curriculum, accountability, and feedback (Bulach et al., 2006).

4. *Control* refers to behaviors such as principals sending a message that the teachers and the building belong to them, assigning a duty during a preparation period, assigning too much paperwork, and using the words *I* and *my* too often (Bulach et al., 2006).
5. *Conflict* refers to behaviors such as being afraid to question superiors, assigning responsibility elsewhere instead of dealing with an issue, showing favoritism, and having double standards (Bulach et al., 2006).

Self-efficacy is a motivating feature—a specific assessment of the capacity to successfully complete an assignment—and is shaped through mastery experiences, explicit experiences, and public and verbal influences (Bandura, 1977). Walker (2003) simplified self-efficacy to "the belief that individuals have that they can do something like read a book, write a poem or dance" (p. 174).

Teacher efficacy refers to teachers' beliefs in their ability to bring about necessary results (Tschannen-Moran et al., 1998). Tschannen-Moran et al. believed that teacher efficacy could be partitioned into three subareas: engaging students, strategizing instructional practices, and managing classrooms:

1. *Engaging students* refers to teacher behaviors that show how much the teacher is willing to do to engage students, help them think critically, and motivate them to show an interest in learning (Tschannen-Moran et al., 1998).
2. *Strategic instructional practices* refers to behaviors that show how well a teacher can respond to difficult questions, gauge student comprehension of

what is being taught, and craft good questions for their students (Tschannen-Moran et al., 1998).

3. *Managing classrooms* refers to how well a teacher can control disruptive behavior in the classroom, make clear the expectations for student behavior, and establish routines so activities run smoothly (Tschannen-Moran et al., 1998).

Assumptions, Limitations, Scope, and Delimitations

This study was built on a few assumptions. I assumed participants would respond to the surveys and interviews as honestly and thoroughly as possible. I also assumed that principal leaders could affect teacher efficacy and thereby how teachers practice their craft. Finally, I assumed certain behaviors cross all leadership styles.

The study was limited to a sample from a single district in New Jersey. Therefore, the results may not be generalizable to teachers and principals in other districts, and other geographical regions. An additional limitation is that even though confidentiality was assured, teachers in the schools may have been wary of responding to questions regarding the principals at their school. All responses to the questionnaires were coded in such a way as to ensure anonymity and confidentiality.

The study was also limited because it was delivered through the Web, allowing for the possibility of misinterpretation of the directions and questions. The use of the Web prohibited participants from seeking any clarification regarding the survey process and mitigated the ability to control distractions or collegial influence.

The scope of the study was four elementary/middle schools in one urban New Jersey school district. It was delimited in several ways. First, I only measured the three

types of teacher efficacy represented by the TSES. Second, leadership behaviors were delimited to those measured by the SSB; leadership styles were outside the scope of the research.

Significance of the Study

Researchers and practitioners may benefit from this study. This study defined a new direction in the research on efficacy that could focus experts on principal behaviors improve the way teachers teach. When teachers are ineffective, students are less successful. Researchers need to know why teachers are ineffective and what can be done to increase their efficacy.

Practitioners may profit from this study as well. I described new paradigms for in-service programs targeted at leadership behaviors that promote efficacy. Entry-level teacher-mentoring/induction programs might include training on how to find administrators or colleagues who will support/promote teacher efficacy.

Administrator-consciousness level may be raised about their role in teacher efficacy and valid means to measure it. Principals may use the data for self-reflection and improvement. I provided principals in the study with an overview of the efficacy level of their newer faculty. This step may help the principal focus on certain areas of professional development.

Finally, I provided the superintendent in the urban New Jersey school district where I conducted the study a summary of the results. Because efficacy is a concern for principals, especially in urban districts, it is important that results were shared with principals to aid in deciding whether a strategic plan is needed to focus on how principal-leadership behaviors influence teacher efficacy. The relationship can be used to design

individual principal-improvement plans and professional development targeted at leadership behaviors that were shown to have a relationship with teacher efficacy in the study.

The results can also be shared with teachers at the school level. Teachers in the underperforming New Jersey urban district referenced in this study must be involved in the conversation about their own teacher efficacy. Teachers need to be aware of their own efficacy level and what they can do to increase efficacy, especially in engaging students, strategizing instructional practices, and managing classrooms. Findings from the current study may be used to address the local problem of teacher attrition and student underachievement by suggesting ways to improve teacher efficacy that, in turn, may improve teacher retention and student achievement.

Implications for Social Change

Collins (2009), educator and winner of the prestigious National Humanities Medal in 2004, believed that when students were unsuccessful, the teacher was unsuccessful, and that educators must fix the teacher first before fixing the student. Collins encapsulated the reason teachers decide to dedicate their lives to teaching: they want students to succeed. Although no teacher explicitly sets out to promote student failure, lack of teacher efficacy can result in inappropriate attitudes and behaviors that are likely to be conveyed to students. The result is that students believe the teacher thinks they are not capable of learning.

If the level of teacher efficacy becomes one of the standards for teacher accreditation, leaders will be encouraged to develop behaviors that support advanced stages of teacher efficacy. Then, as Collins (2009) said, they will be fixing themselves.

This paradigm shift in the field of education will lead to a higher ability to engage students, strategize instructional practices, and manage classrooms, and these in turn will promote student success. In an educated society that is moving from an industrialized economy to a knowledge economy, it is vital that today's students succeed. Students must possess the skills essential to ensure future competitiveness in the world and maintain the quality of life of all Americans.

In 1991, Hilliard believed that teachers did not accept the challenge to educate all children, working to build on students' strengths so each could succeed. To ensure that every child develops to their peak potential, the educational community must focus on policies and procedures that increase teacher efficacy and leadership behaviors proven to increase efficacy. The results of the study showed positive relationships between the principal behavior measures and teacher self-efficacy. Therefore; educators have additional evidence to increase teachers' efficacy by modifying specific principals' behaviors. The focus on improving teacher efficacy may lead to an increase in student learning, and will help prepare future citizens to take on the challenges of a global knowledge society.

Summary

In this study, I examined the behaviors of administrative leaders who influence teacher efficacy. In Section 1, the groundwork for this research study was established. There is little understanding of which leadership behaviors influence teacher efficacy. The purpose of the study was to explore the relationship between principals' behaviors and teacher efficacy. Theories of self-efficacy (Bandura, 1977), teacher efficacy (Tschannen-Moran & Woolfolk-Hoy, 2001), and a model of principal leadership (Bulach

et al., 2006) served as the conceptual framework for this study. I used a mixed-method study to explore the correlations between leadership behaviors and efficacy, and to interview teachers about those relationships. Section 2 will include the theoretical framework and a review of the literature that lays the groundwork for this study. In Section 3, I will describe the research methods and procedures used for the completion of this study.

Section 2: Review of the Literature

Introduction

The purpose of this mixed-method study was to ascertain the leadership behaviors that aid in the development of personal teacher efficacy. This section includes an overview of leadership theories, social-learning theories, leadership scales, and the concept of teacher efficacy. Then, I examine the relationship between leadership and efficacy. The section concludes with a synthesis of the literature, noting strengths, weaknesses, gaps in the literature, and the significance of the present study.

I conducted the literature review using various databases, peer-reviewed journals, books, and professional journals. Searches in EBSCO*host*, ProQuest, Sage, and ERIC databases used the following keywords: *leadership, principal leadership, educational leadership, leadership behaviors, teacher efficacy, leadership scales*, and *teacher efficacy scales*. Questia Online Library, Google Scholar, and the Teacher Reference Center Database resources were also used. The literature review spanned the years 1920 to 2011 but focused primarily on literature from the past 5 years.

An article published in 1998 by Tschannen-Moran et al. firmly established the constructs of teacher efficacy and that teacher efficacy was ready to stand on its own merits. Since then, thousands of articles have been published on the subject of teacher efficacy. However, when searching ERIC, Sage, and Teacher Reference Center using the terms *teacher efficacy* and *principal*, only one was returned. The goal of that study was to assess previous research at a new level by exploring the concept that teacher efficacy, collective efficacy, and principal efficacy might be able to predict teacher commitment (Ware & Kitsantas, 2007).

Forty-five results appeared when I entered the term *teacher efficacy* into the title field in ERIC. Of those 45 articles, seven focused on efficacy beliefs (Charalambous, Philippou, & Kyriakides, 2008; Chong, Klassen, & Huan, 2010; Gencer & Cakiroglu, 2007; Knoblauch & Woolfolk Hoy, 2008; Nunn & Jantz, 2009; Rethlefsen & Park, 2011; Tsouloupas, Carson, & Matthews, 2010). Nine of the 45 articles focused on teacher efficacy in relationship to mathematics and science (Angle & Moseley, 2009; Bruce & Ross, 2008; Gresham, 2008, 2009; Marat, 2007; Puchner & Taylor, 2006; Richardson & Liang, 2008; Swars, Daane, & Giesen, 2006; Yu-Liang, 2010). Of the articles in the search, 8% studied efficacy across the globe (Cheung, 2006, 2008; Chong et al., 2010; Dunham & Song'ony, 2008; Faleye, 2008; Kotaman, 2010). Two journals published articles on teacher burnout (Pas, Bradshaw, & Hershfeldt, 2010; Skaalvik & Skaalvik, 2007) and three researchers collaborated to explore the beliefs of teachers in the Yukon (Klassen, Foster, & Rajani, 2009). Yet, no research emerged on how the leadership behaviors of the principal affected teacher efficacy.

Between 1998 and 2009 the number of articles in peer-reviewed journals increased significantly, along with the use of varied methodologies. In 2007, Ware and Kitsantas used the 2005 School and Staffing Survey to study whether efficacy beliefs predicted allegiance to the profession. They discovered that principal feedback was important to teacher efficacy. They also found that the ability to garner the principal's backing, impact decision making, and skillfully manage the classroom were related to teacher willingness to remain in the profession (Ware & Kitsantas, 2007).

In 2010, Klassen, Tze, Betts, and Gordon looked at 218 empirical studies published between 1998 and 2009 to review the state of affairs of research on teacher

efficacy. They found that only 14.7% of studies completed between 1998 and 2009 used mixed methods (Al-Fadhli & Singh, 2006; Gado, Ferguson, & Van t Hooft, 2006; Klassen et al., 2010; Marcos, 2008; Onafowora, 2005; Williams, 2009). However, not one researcher focused on the principal as a source of efficacy. They suggested that the sources for teacher efficacy are still in need of further investigation to clarify how it develops. The Klassen et al. (2010) review also suggested that if researchers understood the source of efficacy, it could lead to more awareness of how to augment the self-efficacy of teachers. One area for investigation is the role of principal leaders in promoting teacher efficacy.

Leadership Theories

Theorists put forth five models of leadership. The great-man theory (Chemers, 1997) and trait theory (Kohs & Irle, 1920) are based on the belief that leaders are born, not made. Great-man theory states that only men can become leaders, in contrast to trait theory, which suggests that as long as one was born with certain traits (assertiveness, confidence, and willingness to assume responsibility) a person of either gender could become a leader.

Transformational and transactional leadership are distinguished by the manner in which a leader interacts with followers. Transformational leaders (Rost, 1993) work with their followers, together pursuing a higher moral purpose. Transactional leaders reward or punish their followers based on their performance. Situational-leadership theory (Hersey & Blanchard, 1969) presumes that one type of leadership does not work for every situation. All five theories establish that there is some intrinsic quality that defines

a leader. The theories differ in their definitions of extrinsic manifestations of being a leader.

These major leadership theories apply to leaders in general, whereas the leadership theory used in this study focuses on educational leadership. In the 1980s, researchers showed that principals who focused on curriculum and instruction usually led effective schools. These trends led to instructional leadership as a new area of leadership. Glickman (1985) defined the five primary tasks of instructional leadership as teacher support, group development, professional development, curriculum development, and action research. Instructional-leadership theory provided the foundation for this study.

Leadership Scales

A number of leadership scales preceded the scale developed by Bulach et al. (1999) that I used in the current study. Blake and Mouton (1964) and Hersey and Blanchard (1969) created leadership inventories that focused on people rather than tasks. The Barrett-Lennard Relationship Inventory (1964), based on the work of Rogers, was designed to measure the opinions of either member in a two-person relationship and contained scales for empathy, congruence, regard, and unconditionality of regard (King, 2001). Halpin and Winer (1952) developed the first instrument focused solely on measuring instructional-leadership behaviors (Bulach et al., 2006). Bass and Avolio (1992) developed a survey that rated the frequency and behavior of the leader. Leithwood developed the Nature of Leadership Survey (1993), and then collaborated with Jantzi in 1997 to create the Principal Leadership Questionnaire. This questionnaire collected data about teachers' perceptions of their principals' leadership behaviors. These two surveys were designed only for teacher responses (Elliot, 2000; Ryan, 2007). Wirt and Krug

(1998) designed a new scale based on cognitive scales. The instrument was adapted so teachers could report how they perceived the principal's leadership actions (Bulach et al., 2006).

Bulach et al. (1999) saw a need to focus on behaviors that instructional leaders could change; therefore, they set out to develop an instrument that highlights leadership behaviors that could be improved. In this study, I used the instrument they developed as a result of their work. Bulach et al. (1998) sampled teachers enrolled in a master's program to discover what mistakes their principals made. Bulach et al. (1999) then used that list of mistakes to develop a survey instrument. Responding to the survey were 208 educational-leadership graduate students; a factor analysis of the survey yielded nine major areas accounting for 64% of the variance. Factors that accounted for much smaller variances were combined and five categories were created: human relations, trust/decision making, instructional leadership, control, and conflict. Bulach et al. (2006) then delineated competencies in each of these five categories.

Human relations is an area that fosters the advancement of self-assurance and openness between the leader and the followers (Bulach et al., 2006). Human-relations skills include calling people by name, using eye contact, having a caring attitude, interacting with staff, and including staff in decisions. Research by Martin (1990), Deluca, Rogus, Raisch, and Place (1997), Harrill (1990), Hutchison (1988), Jolly (1995), and Rouss (1992) under laid the notion of Bulach et al. (2006) that human relations and interpersonal skills are aptitudes needed by successful leaders.

Trust between people was characterized by five factors: an assured reliance or confident dependence on the (a) character, (b) ability, (c) truthfulness, (d) confidentiality,

and (e) predictability of others in the group (Bulach, 1993). Trust/decision-making skills include listening to both sides of a story, not gossiping, and carefully thinking through decisions.

Instructional-leadership skills involve vision, knowledge of curriculum, accountability, and feedback. The behaviors connected to instructional leadership were involvement in the daily working of the classroom and providing meaningful feedback to teachers. When principals conducted staff development, held instructional conferences, and developed teacher reflection, teachers' feelings and attitudes were dramatically impacted (Blasé & Blasé, 2004).

In the area of control, principals often used the words "my school" or "my staff." Principals had difficulty delegating assignments and including teachers in major decisions. Teachers reported resenting this exclusive language and felt it gave the impression to staff that principals felt they "owned" the school (Bulach, 1993). Blasé and Blasé (2004) also noted teachers felt principals were being controlling when they limited teacher participation in decision making, directed instructional areas, and influenced classroom instruction.

The last area in human relations and interpersonal skills is conflict. The conflict scale includes behaviors such as the ability to keep a confidence, fairness, and support for teachers. Bulach (1993) found that principals often went too far in avoiding conflict and missed an opportunity to use conflict as a positive force to improve the supervisory climate of the school.

Social-Learning Theory and the Concept of Efficacy

Social-cognitive theory is the academic foundation of self-efficacy. Bandura (1977) showed that many learning theories of the day were lacking something crucial: the element of self-belief. Since that article was published, researchers have shown that self-efficacy beliefs reach and influence every aspect of people's lives. Graham and Weiner (1996) believed self-efficacy had been proven to forecast behavioral effects more than has any other motivational idea.

Teacher Efficacy

A 1976 study by the Rand organization, inspired by an article by Rotter (1966), found that teacher efficacy was associated with differences in reading scores for minority students (Tschannen-Moran et al., 1998). These results sparked an interest in a new educational research area: teacher efficacy. Efficacy is comprised of three components: general teacher efficacy, personal teacher efficacy, and teacher efficacy. General teacher efficacy refers to the belief that the influence of a student's home life outweighs any influence teachers can bring to bear in the classroom (Ashton, Webb, & Doda, 1982).

Personal teacher efficacy refers to the confidence teachers have in their ability to teach any student, irrespective of their heritage and place in society. Teacher efficacy refers to teachers' inherent desire to engage students and increase learning, even with disaffected students (Armor et al., 1976). Ashton et al. (1982) combined psychological aspects and educational aspects in a multidisciplinary study that found efficacy attitudes are fluid and that efficacy is critical to equalizing opportunities for all students. Rich, Lev, and Fischer's (1996) findings supported earlier findings that teacher efficacy (or general teacher efficacy) and personal teacher efficacy were independent of each other. In

1993, Hoy and Woolfolk found that principal influence predicted personal efficacy, and when teachers perceived the principal to be influential with superiors, they felt more efficacious.

Teacher efficacy is a teacher's belief in their ability to affect student learning (Ashton et al., 1982). Teacher efficacy includes three distinct areas that contribute to the overall teacher-efficacy construct: student engagement, instructional strategies, and classroom management (Ross, 1992). A strong sense of efficacy in the area of student engagement starts with the belief that all children can learn (Guskey, 1988). As a result, an efficacious teacher does not cease to assist the vulnerable student (Ashton & Webb, 1986).

The second area in which efficacious teachers tend to be strong is instructional strategies. They create new strategies, adapt lessons, facilitate learning, and attempt new techniques (Gibson & Dembo, 1984; Guskey, 1988; Ross, 1992). This type of teacher ensures that clear and attainable expectations are mutually established and that they teach all the necessary skills and strategies (Alderman, 1990). The third and final component of teacher efficacy is classroom management. Efficacious teachers create an atmosphere that is beneficial to the needs of all learners by being prepared and systematic, yet lithe enough to adapt to the changing demands of the learner (Allinder, 1994). The efficacious teacher is also able to use supervision techniques that encourage students to be more self-sufficient (Ross, 1992).

Teacher-Efficacy Scales

There has been a persistent and progressive interweaving of teachers' sense of efficacy and its measurement (Heneman, Kimball, & Milanowski, 2006). This

development has involved two separate yet linked theoretical strands that have contributed to an ambiguous notion of teacher efficacy (Tschannen-Moran et al., 1998). One strand, based on Rotter's (1966) notion of locus of control focused on the concept of internal and external control. Teachers who believed control was external felt the environment overwhelmed their ability to be effective. In contrast, educators who believed they could affect student achievement had internal control. The second strand, based on Bandura's (1977) concept of self-efficacy, focused on the idea that efficacy described teachers' assessment of their ability to effect student change rather than about control.

Early measures of efficacy were the Teacher Locus of Control and the Responsibility for Student Achievement, designed by Rose and Medway (1981). The Webb Scale, focused on Rotter's (1966) idea of external and internal control. Gibson and Dembo developed a tool in 1984 that was based on Bandura's conceptual foundations and was more reliable for evaluating teacher efficacy. This scale was grounded in the belief that self-efficacy was a teacher's evaluation of their capacity to produce student change. The Teacher Efficacy Scale (TES) consisted of 30 items with a 6-point Likert scale, and introduced the terms personal and general efficacy. This scale was the standard for measuring teacher efficacy until 1993 when Hoy and Woolfolk questioned whether the TES actually measured an individual teacher's sense of efficacy. The Gibson and Dembo instrument was popular, however there were problems conceptually and statistically (Tschannen-Moran & Woolfolk Hoy, 2001). Tschannen-Moran and Woolfolk Hoy (2001) saw the need to address the conflict between the idea of content and subject specificity, and refined the instrument further. Working with a group of graduate students

and fusing Bandura's (1977) scale with Gibson and Dembo's (1984) scale, the Ohio State Teacher Efficacy Scale (now more commonly referred to as the TSES) was born. Rather than measuring personal and general efficacy, this instrument measures individual teacher efficacy in engaging students, strategizing instructional practices, and managing classrooms. The 24-item (long-form) and the 12-item (short-form) instruments have been found to be valid and reliable. The TSES surpasses other tools for measuring teacher efficacy: it is unified, consolidates previous research and measures abilities teachers deem central to good teaching (Tschannen-Moran & Woolfolk Hoy, 2001).

Related Studies on Teacher Efficacy

Fry (2009), Erdem and Demirel (2007), Yost (2006), Palmer (2006), and Utley, Bryant, and Moseley (2005) investigated procedures to promote higher levels of teacher efficacy in 1st-year teachers. Swackhamer, Koellner, Basile, and Kimbrough (2009) speculated that courses meant to increase content knowledge (such as mathematics) would increase the efficacy of teachers who were in the classroom for more than 1 year. Yeo, Ang, Chong, Huan, and Quek (2008) focused on teachers and low-achieving adolescents. Yeo et al. investigated engaging students, strategizing instructional practices, and managing classrooms and their link to teacher characteristics and teacher–student relationships. The study, conducted in Singapore, focused on teachers of low-achieving adolescents who are at risk of failing and dropping out. The 55 teachers in the study ranged in age from 23 to 55. The professional experience of the subjects spanned 39 years. The authors investigated whether the demographic profiles (age, years of experience, gender, and number of levels taught) of a teacher coincide with teachers'

efficacy beliefs, and to what degree teacher variables and teacher–student interactions foretell teacher-efficacy beliefs (Yeo et al., 2008).

Yeo et al. (2008) used the 24-item TSES (Tschannen-Moran & Woolfolk Hoy, 2001), The TSES provides scores for three discrete areas of the teacher–student relationship: instrumental help, satisfaction, and conflict. Teachers rated their individual relationships with students. Higher ratings in the areas of influential help and contentment meant that teachers saw themselves as a resource for students (Yeo et al., 2008). In contrast, high scores in conflict inferred that teachers saw their dealings with students negatively. Ang (2005) used the Teacher–Student Relationship Inventory to evaluate teachers' acuity about the value of their rapport with students in Grades 5–12.

Researchers found no notable differences when they compared instructional strategies, classroom management, and student engagement to gender and number of levels taught (Yeo et al., 2008). However, disparities occurred between beliefs for neophyte teachers and veteran teachers in all three dimensions of self-reported efficacy: engaging students, strategizing instructional practices, and managing classrooms. The researchers found that more experience in the field led to higher levels of teacher efficacy. The study by Yeo et al. is notable because not only did they use the TSES, the instrument that I used in the present study, but also because the findings regarding the role of experience on teacher efficacy implied that the influence of leaders on teacher efficacy is most critical during the novice years of teaching. This finding prompted me to focus on a limited number of years of teaching. Therefore for the current study I initially attempted to survey teachers with fewer than 5 years of experience.

Relationship Between Leadership and Self-Efficacy

Chester and Beaudin (1996) noted the limited research that examined the factors contributing to changes in efficacy beliefs of teachers: when supervisors attended to instructional dimensions of teachers' roles, efficacy improved. Blasé and Blasé (1999) found few studies that studied teachers' viewpoints on everyday instructional-leadership actions and the import of those actions on teacher behavior. Angelle (2010); McGuigan and Hoy (2006); Day, Sammons, Hopkins, Leithwood, and Kington (2008); McCollum, Kajs, and Minter (2005); Kelley, Thornton, and Daugherty (2005); Korkmaz (2007); Crum, Sherman, and Myran (2010); and Nash (2010) studied the effect the principal had on the school climate and student achievement. Hipp (1996), Elliot (2000), King (2001), Staggs (2002), Ebmeier (2003), Ross and Gray (2004), Nir and Kranot (2006), Ryan (2007), and Griffin (2009), reviewed below, delved into the relationship between leadership and teacher efficacy.

Of nine studies that focused on the relationship between leadership and teacher efficacy, six looked at general teacher efficacy, teacher self-efficacy, and specific indicators of efficacy (Elliot, 2000; Hipp, 1996; King, 2001; Leithwood, 1993; Ryan, 2007; Staggs, 2002). Both Hipp (1996) and Elliot (2000) conducted mixed-methods studies using the Nature of Leadership Scale (Leithwood, 1993) and early forms of the TES (Gibson & Dembo**,** 1984 adapted by Hoy and Woolfolk**,** 1993). Hipp's study provided no statistical data showing a relationship between principal support and general teacher efficacy, however there was some evidence in the interviews suggesting a relationship. Elliot's study showed one significant relationship between teachers' perceptions of leadership behavior and efficacy: that relationship was between general

teacher efficacy and individualized support from the principal. Elliot believed that the study left some questions unanswered, such as why there is no relationship between personal efficacy and principals' leadership, and what leadership behaviors affect teachers at all levels of teaching.

Six years after Elliot's (2000) findings were published, Ryan (2007) completed a very similar study with different results. Ryan used the TSES (Tschannen-Moran & Woolfolk-Hoy, 2001) and the Principal Leadership Questionnaire (Jantzi & Leithwood, 1996). Ryan concluded no relationship existed between teachers feeling supported and their sense of efficacy. These results did not support Elliot's findings and Ryan recommended further investigation of this connection.

King (2001) and Staggs (2002) used versions of the TES to examine the leadership–teacher efficacy connection. King used the TES and the Barrett-Lennard Relationship Inventory to see if there was a connection between teacher–principal interpersonal relationships and teacher efficacy. King found no significant relationship between teacher–principal associations and general teacher efficacy, but did notice a statistically significant association between teacher views of teacher–principal associations and personal teacher efficacy. Staggs's study asked whether teachers' views of their principal's leadership behaviors had an effect on teacher efficacy. Using the Ohio Health Inventory (Hoy & Tarter, 1997) and TES, Staggs found that teacher views of principal leadership correlated with general teaching efficacy but not with personal teaching efficacy.

Nir and Kranot (2006) used the TES (Gibson & Dembo, 1984) and the Multifactor Leadership Questionnaire (Avolio, Bass, & Dung, 1996) and found a

relationship between transformational leadership and personal teacher efficacy. Griffin (2009) used the TSES (Tschannen-Moran & Woolfolk Hoy, 2001) and the Multifactor Leadership Questionnaire (Bass & Avolio, 1992) to explore the connection between self-efficacy and opinions of the school principal's leadership style. Griffin established that only transformational leaders affected classroom management. Both studies looked at three types of leadership and both studies found that transformational leadership did impact efficacy, yet the impact was in different areas.

Ebmeier (2003) used path modeling derived from Tschannen-Moran et al. (1998) and showed that school principals play an important role in the development of teacher efficacy. Ross and Gray (2004) studied transformational leadership and the impact it had on teacher efficacy. They developed a new instrument that combined items from six previous studies. The instrument consisted of 46 Likert-type statements based on a 6-point response scale. Their results showed that transformational leadership directly affected collective teacher efficacy.

Synthesis

Nine studies in the literature focused on the relationship between school leaders and teacher efficacy. The studies varied in sample size (34 to 3,074), type of school district (urban and suburban), and geographic location (areas of the United States, Canada, and Israel). Furthermore, participants in the studies varied in grade levels taught, with teachers in elementary, middle, and high schools. Many studies used versions of the TSES. However, none of the studies used the measure of leadership behavior used in the present study. Two of the nine studies (Griffin, 2009; Ryan, 2007) used the TSES, the measure of teacher efficacy used in this study. Most studies used the TES, the precursor

to the TSES. All nine studies relate to the purpose of this study in that they all examined the link between leadership behaviors and teacher efficacy. However the results were inconsistent, due perhaps to differences in samples and measures of leadership. All the studies used quantitative surveys and three of the nine studies used mixed methods to answer the research questions. Because the results have not been easily replicated, the current research used a mixed-methods design to get a more complete picture of relationships and to use an established method in this field of study (see Table 1).

Table 1

Studies Using Teacher Efficacy Scales and Leadership Scales

Study	Variables	Sample	Teacher efficacy scales	Leadership scales	Relationship to current study
Hipp 1996	Leadership behaviors and teacher efficacy	34 middle schools teachers and 10 administrators from 62 schools in Wisconsin	TES* (Gibson & Dembo, 1984) Interviews	NOLS*** (Leithwood, 1993)	Showed significant relationship between leadership behaviors and teacher efficacy
Elliot 2000	Leadership behaviors and teacher's sense of efficacy	235 elementary schools teachers from 10 schools in Connecticut	TES* (Gibson & Dembo, 1984)	NOLS *** (Leithwood, 1993)	Evidence that leadership behaviors have an effect on teacher efficacy
King 2001	Teacher-principal interpersonal relations and teacher efficacy	77 elementary teachers from 124 schools in central Virginia	TES* (Gibson & Dembo, 1984)	Barrett-Lennard Relationship Inventory (Barrett-Lennard, 1964)	No significant relationship between teacher–principal relations and general teacher efficacy

table continues

Study	Variables	Sample	Teacher efficacy scales	Leadership scales	Relationship to current study
Staggs 2002	Teacher efficacy and leadership behaviors	2515 teachers from 103 elementary, middle and high schools in Ohio	TES* Hoy & Woolfolk (1993)	Ohio Health Inventory (Hoy & Tarter, 1997)	Questioned whether teachers' perceptions of leadership behavior affected teacher efficacy
Ross & Gray 2004	Transformational leadership and teacher efficacy	3,074 elementary teachers in 2 large school districts in Canada	New instrument that combined items from six previous studies. The instrument consisted of 46 Likert statements based on a 6-point response scale.		Showed that transformational leadership had a direct effect on collective teacher efficacy
Ebmeier 2003	Supervision and teacher efficacy	332 full time k-12 teachers from a large Midwestern metropolitan area	Path modeling that was derived from Tschannen-Moran, Woolfolk Hoy & Hoy, 1998.		Indicated that the behaviors of school principals play important role in development of teacher efficacy
Nir & Kranot 2006	Personal teacher efficacy	775 teachers elementary teachers in Israel	TES* (Gibson & Dembo, 1984)	Multifactor Leadership Questionnaire (Avolio et al., 1996)	Showed that transformational leadership had some effect on personal teacher efficacy
Ryan 2007	Teacher perceptions of principal leadership traits and teacher efficacy	50 elementary, 50 middle, and 50 high school teachers in Texas	TSES** (Tschannen-Moran & Woolfolk Hoy, 2001)	Principal Leadership Questionnaire (Jantzi & Leithwood, 1996)	Found no relationship between teachers feeling supported and their sense of efficacy
Griffin 2009	Perceived leadership styles and efficacy in terms of student engagement, classroom management and instructional strategies	435 teachers from 4 metropolitan high schools in the southeastern US	TSES** (Tschannen-Moran & Woolfolk Hoy, 2001)	Multifactor Leadership Questionnaire (Bass & Avolio, 1992)	Classroom management was affected by leadership style

Note. *TES = Teacher Efficacy Scale; **TSES = Teacher Sense of Efficacy Scale; ***NOLS = Nature of Leadership Scale

Ryan (2007) and Griffin (2009) looked at the three subscales of the TSES; yet they used different leadership scales. Griffin used a causal-comparative design, whereas Ryan used mixed methods. Ryan found no relationship between feeling supported and a teacher's sense of efficacy; Griffin found that classroom management was affected by leadership style. Griffin's findings warranted further exploration of the link between leadership style and teacher efficacy.

Although evidence exists, findings are inconsistent as to whether there is a relationship between principals' behaviors (negative or positive) and teacher's sense of efficacy; no prior research used the SSB, developed by Bulach et al. (1999). This instrument seemed well suited to measure principal-leadership behaviors and answer the research questions for this study.

Literature Related to the Method

Two of the nine studies discussed above used mixed methods to examine the link between principal behavior and teacher efficacy. Hipp (1996) and Elliot (2000) conducted mixed-methods studies using the Nature of Leadership Scale (Leithwood, 1993) and early versions of the TES (Gibson & Dembo**,** 1984 adapted by Hoy & Woolfolk**,** 1993). Hipp's study provided no statistical data showing a relationship between principal support and general teacher efficacy, however there was some evidence for the relationship in interviews. Elliot's study showed one significant link between teachers' perceptions of leadership behavior and efficacy; that relationship was between general teacher efficacy and individualized support from the principal. Elliot believed that the study left some questions unanswered, such as why no relationship exists between personal efficacy and principals' leadership, and what leadership

behaviors affect teachers at all levels of teaching. It is conceivable that the five domains of behavior on the SSB relate to teacher efficacy. The current study extended the literature by looking at leadership behaviors that have not been considered in connection with teacher efficacy.

Literature Related to Differing Methodologies

Of the remaining seven studies that considered leadership and efficacy, four used the survey design (King, 2001; Leithwood, 1993; Ryan, 2007; Staggs, 2002). Two studies used the pathway model (Ebmeier, 2003; Ross & Gray, 2004)) to visualize the connections between leadership and efficacy. Griffin (2009) used a causal-comparative model. I found no studies that used a qualitative design. Because the findings on the links between leadership and teacher efficacy have been inconsistent and the leadership behaviors measured have varied greatly, it was necessary to include a qualitative component in the current study.

Summary

This section presented an overview of leadership theories and social-learning theories relating to efficacy, leadership scales, and the concept of teacher efficacy. A number of studies addressed relationships between teacher efficacy and aspects of principal leadership behaviors. I discussed the strengths and weaknesses of these studies and noted gaps in the literature.

Since the Rand Corporation first identified general, personal, and teacher efficacy in 1976, researchers have exerted time and effort “capturing an elusive construct” (Tschannen-Moran & Woolfolk Hoy, 2001, p. 783). After reviewing multiple studies that used qualitative, quantitative, and mixed methods, it seems “elusive construct” is still a

valid moniker for teacher efficacy. First, researchers suggested that the concept of teacher efficacy is still in its early stages and needs more research. Second, many researchers believed that the TSES is a valid and reliable measure and an important step toward defining that elusive construct. Third, there is no consensus on whether efficacy is the same at all levels of the educational process (elementary, middle, and high school). Finally, there is some discord about what leadership styles, if any, impact teacher efficacy. In conclusion, research must continue, the TSES should be used to define the elusive construct, teacher efficacy needs to be defined at all levels, and leadership styles that make the most impact need to be encouraged.

Section 3: Methodology

Introduction

In this section, I describe the sequential explanatory mixed method I used in this study. I chose this mixed-method approach because the results of prior quantitative research have been insufficient and need to be elucidated by qualitative explanations. Johnson, Onwuegbuzie, and Turner (2007) noted that mixed methods provide the researcher the ability to combine quantitative and qualitative research to allow for breadth and depth of understanding and verification. Creswell and Plano-Clark (2011) noted that quantitative trends supported by qualitative narrative tell the whole story.

The aim of this two-phase sequential explanatory study was to examine the relationships between principals' leadership behaviors and teachers' sense of efficacy. I took a comprehensive look at human relations, trust/decision making, instructional leadership, control, and conflict, and how these relate to teachers' sense of efficacy in engaging students, strategizing instructional practices, and managing classrooms. In Phase 1, I used two surveys: one to identify levels of teacher efficacy, and the other to identify leadership behaviors associated with teacher efficacy. In Phase 2, interviews with a small subsample of teachers provided further insight into leadership behaviors and possible links to teacher efficacy. I analyzed the data separately and used triangulation to explain the quantitative and qualitative findings.

This section will be divided into the following subsections: mixed-method design, setting and sample, participants' selection for interviews, quantitative survey, survey instruments, qualitative interviews, data analysis, protection of participants' rights, and a summary.

Mixed-Method Design

I employed a mixed-method approach using surveys and individual interviews to address the research questions of the study. In this explanatory mixed-methods design, I began by conducting a quantitative phase and followed up with a second phase (Creswell & Plano-Clark, 2011, p. 1015). The quantitative and qualitative results were integrated during the analysis phase of the study.

The rationale for using both quantitative and qualitative data was to balance the limitations inherent in one method with the strengths of the other method. This design allowed for the integration of quantitative and qualitative analysis during the interpretive phase. The most important advantage of the concurrent design is that I could achieve a broader viewpoint by using different methods to obtain data. The disadvantage to using this approach was that there are no recommendations given on how I should resolve inconsistencies that came about as a result of using two types of data (Creswell, 2003).

Setting and Sample

For this study, I selected the district involved because two of the schools failed to meet NCLB standards. I drew participants in the study from the population of teachers with fewer than 5 years experience in four elementary/middle schools in an underperforming suburban/urban district in New Jersey. Beginning teachers are known to be developing their sense of teaching efficacy and may be influenced by principal leadership. During the study the criteria was relaxed to allow for enough participants. I used purposeful sampling to select participants for in-depth, follow-up interviews, once I had collected and analyzed the surveys.

Population and Sample for the Survey

An urban/suburban district in northeastern New Jersey has a population of 2,759 students. The teaching staff has 153 members and administrators number about 20. Two elementary schools house Grades 1–4, one school houses Grades 5–6, and one school houses Grades 7–8 in the district of interest in this study. The entire teacher population of those four schools was about 130. Initially, I invited all teachers in the population with 5 years or fewer of teaching experience to participate in the survey. However, the criteria were widened to obtain a sufficient sample size.

Because I invited all teachers in the four schools to participate, total-population sampling was used. The number of eligible teachers who voluntarily responded to the survey determined the sample size. Approximately 84% of potential participants were women. About 55 female teachers have 5 years or less experience; about 9 male teachers have 5 years or less experience. I proposed that 30 respondents who have 5 years or less of teaching experience be surveyed, however, 19 participants actually completed the survey and half of them had more than 5 years of teaching experience.

Participant Selection for Interviews

For the interview phase of the study, I used a maximum-variation sampling technique (Patton, 2002). I proposed to interview 10 participants. However, only four participants volunteered for the interviews. One participant had the second highest score on the TSES; one had the second lowest score. The third and fourth participants had the middle score on the TSES. Three participants had less than 5 years of teaching experience, and the fourth participant had more than 10 years of teaching experience Although it was noted that the fourth participant saw no relationship between leadership

behaviors and her sense of teacher efficacy, this participant was dropped from the narrative because her data offered no insights into the relationships that were found in the quantitative analysis.

Morse (1995) thought saturation was the most critical part of excellent qualitative work. Researchers disagree about what saturation means in qualitative research. Guest, Bunce, and Johnson (2006) suggested that if a group is relatively homogenous, 6 to 12 participants will likely be enough to reach saturation. Typically, major themes occur after the sixth interview. Because I was unable to obtain more than four interviews, I was unable to reach saturation, and the qualitative data is merely suggestive of themes that might arise with a larger sample.

As I conducted the interviews, it was critical to bracket my passion for the subject to maintain objectivity. I believe that my 31 years of experience as an educator enabled me to establish a trusting researcher–participant relationship. At the beginning of each interview I introduced myself and talked a bit about my teaching experience. I then allowed interviewees to tell me a bit about their teaching experience. This brief introduction set the tone for the interview.

Connection to the Research Questions

The essential question of this study was: What are the correlations between leadership behaviors and teacher perceptions of self-efficacy? The sequential design involved collecting the quantitative (survey), then the qualitative (interview) data and combining them during the interpretation of the results. Specifically, the quantitative portion of the study included the following subquestions:

RQ1. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement?

RQ2. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies?

RQ3. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management?

RQ4. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement?

RQ5. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies?

RQ6. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management?

RQ7. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement?

RQ8. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies?

RQ9. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management?

RQ10. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in student engagement?

RQ11. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies?

RQ12. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management?

RQ13. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in student engagement?

RQ14. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies?

RQ15. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management?

The qualitative portion of the study included the following questions:

RQ16. How do teachers describe the relationship between principals' behaviors in the human-relations domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ17. How do teachers describe the relationship between principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ18. How do teachers describe the relationship between principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ19. How do teachers describe the relationship between principals' behaviors in the control domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ20. How do teachers describe the relationship between principals' behaviors in the conflict domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

Quantitative Survey

I used two instruments to collect the quantitative data. The TSES (Tschannen-Moran & Woolfolk Hoy, 2001; see Appendix A) provided data about teacher efficacy.

The SSB (Bulach et al., 1999; see Appendix B) provided information on leadership behaviors of principals from the teachers' perspective.

Survey Instruments

I chose the TSES scale because of its validity, reliability, and prolific use in the educational-research community. The TSES is a 24-item, 9-point Likert-type scale (Tschannen-Moran et al., 1998). The 24 items are distributed in three subscales (outcome variables in the study): engaging students, strategizing instructional practices, and managing classrooms. Each subscale has six items and is scored by computing the mean for those items. The scale is included in Appendix A. "Reliabilities for the teacher efficacy subscales were 0.91 for instruction, 0.90 for management, and 0.87 for engagement" (Tschannen-Moran & Woolfolk Hoy, 2001, p. 799). The TSES has been widely referenced in the literature and should be the benchmark for research that aims to quantify teachers' sense of efficacy (Heneman et al., 2006). I obtained permission from the authors to use the TSES in this study (see Appendix C).

I chose the SSB because it allows teachers to rate the leadership behaviors of a principal rather asking principals to rate their own behaviors. In this study, I correlated teachers' perceptions of the leader's behaviors with their own self-efficacy and therefore this instrument was the only available instrument that was appropriate. The SSB (Bulach et al., 1999**)** consists of 49 behaviors that measure teachers' perceptions of their principal's leadership style. Teachers rated how often they see a principal exhibit a behavior, using a 5-point Likert-type scale that ranges from *never* (A) to *always* (E). The scale consists of five domains (predictor variables in the study): human relations, trust/decision making, instructional leadership, control, and conflict. Each participant

received a mean subscale score for each subscale. The instrument's reliability was confirmed by a correlation coefficient of + .95. The reliability of the factors ranged from + .86 to + .81. The instrument met the standard for construct validity in recognizing principal behaviors that educators like or dislike (Bulach et al., 2006). I obtained permission to use the SSB from Bulach (see Appendix D).

The TSES and SSB were administered online using Constant Contact, an online survey service. Surveys delivered through the Internet raise concerns about trust (confidentiality or anonymity may often come in to question) and social desirability (Smyth, Dillman, & Christian, 2007). To establish trust, I assured confidentiality by assigning an alphabetical code rather than using participants' names. I addressed social desirability, the tendency of participants to respond in a way that will be viewed positively by others, by stating in the instructions of the survey that there are no right or wrong answers.

Question context, the effect of earlier questions/statements on answers to later questions/statements, is also a concern for researchers (Smyth et al., 2007). I maintained full control over the order in which the questions were read and processed, thereby eliminating some contextual effects. The online surveys used the exact same order as the pencil-and-paper surveys and respondents saw only one statement at a time. The respondents then had an opportunity to review their answers and make any changes before they submitted their responses.

How an online survey is viewed by the respondent is subject to the type of computer on which it is being viewed (Smyth et al., 2007). The computer on which the respondent views the survey must have the exact same hardware/software as the

computer on which the survey was designed. If the hardware/software is not the same, there can be variations in the user interface for respondents. To minimize these variations, respondents accessed the survey through the district network so that the hardware/software and interface were standardized. Thus, the fact that respondents completed the survey through an online survey service and the school district's network reduced the likelihood of having hardware and software issues.

Careful consideration must be given, when designing an online survey, to minimize the importance of some options over others (Smyth et al., 2007). In other words, no words or statements should be in bold type, italics, or in a different size or shape than any other words in the survey. The online survey mimicked the paper surveys as closely as possible.

The survey data-collection process involved disseminating information about the purpose of the study, enrolling study volunteers, distributing links to the Constant Contact website where the two surveys were administered online, and sending reminders to nonresponders. I contacted principals of the participating schools to secure teacher participants who met the criteria for the study. Then I sent an email to all eligible teachers in the three elementary schools and one middle school in the district. The introductory email contained my short biography, a description of the study, an explanation of the importance of the research, information on how the study could assist participants, step-by-step instructions for interested participants, and a link to the survey.

The email contained a tracking code that permitted access to the survey. The tracking code contained the school number and the participant's number. I assigned the

participants' numbers in numerical order. The tracking code allowed me to know exactly how many surveys were completed from each school.

I gave participants 1 month to complete the survey on the Internet. I sent participants weekly automated email reminders to increase the response rate, once the online survey was made available (Sue & Ritter, 2007). I advised participants, in the initial email and in the instructions for the online survey, that they must complete the survey once they start for their responses to be retained. I advised participants that the survey would take 10–15 minutes. When participants completed the online survey, I provided them with a confirmation message thanking them for their participation and allowing them to download a $5 coupon to a local coffee house. An automated reminder was sent by email to provide one more opportunity for nonresponding participants to complete the survey. The survey remained online for a month; then the online site and all links to it were disabled and no longer could be viewed by participants.

Survey responses were stored in Constant Contact, and I was the only person with access to the data. Each participant's response to the survey items, along with the means for each subscale of the survey, will be stored in Constant Contact for a year after acceptance of the dissertation. Because the instruments have been shown to be valid and reliable, I conducted no specific procedures for validity and reliability.

Qualitative Interviews

I collected qualitative data in the second phase of the study. This phase of the data collection did not take place until the TSES and SSB scales had been completed and analyzed. I used interviews to gather more in-depth information about the associations or lack of associations between leadership behaviors and teachers' beliefs about their self-

efficacy. The interviews lasted between 15 and 45 minutes. The interview questions are provided in Appendix E. These questions were field tested during dissertation-proposal development with a panel of three content experts who hold doctorates in education. Each was given a copy of the proposed interview questions and asked to provide written feedback on suggested changes.

I emailed participants, based on their scores on the TSES, to ask if they would be willing to participate in a follow-up interview at a specific time and location. For those who agreed to participate, I conducted the interviews in a private room designated by an administrator in each of the participating school buildings. The interviews began with some background about me; then I asked the interviewee to share some background about themselves. This sharing was meant to put the interviewee at ease and to establish rapport.

Once the interviews were transcribed and the results analyzed, the qualitative results were triangulated with the quantitative results during the interpretation phase. I discuss the data-analysis procedures in the next section.

Data Analysis

Survey Data Analysis

Two surveys were the sources of quantitative data. I planned to use correlational analysis to discover the relationships between leadership behaviors and teacher efficacy. Gravetter and Wallnau (2005) defined correlation as a numerical procedure used to explain an association between two variables. Pearson product-moment correlation (Pearson *r*) was used measure relationships between the five areas of leadership behaviors (human-relations, trust/decision-making, instructional leadership, control, and

classroom management) and three subscales of teacher efficacy (engaging students, strategizing instructional practices, and managing classrooms). I used Effect sizes, which according to Cohen (1992) are the measures of the strength of the relationship between the variables and the study population, are used to interpret the Pearson *r.* An *r* of .1 is considered a small effect; an *r* of .3 is considered a medium effect; and an *r* of .5 considered a large effect. I reported descriptive statistics (means and standard deviations) for each scale of the SSB and the TSES.

Interview Data Analysis

I prepared the qualitative data for analysis by transcribing the interviews. I read all data to get an overview of the information. After the transcripts were read, the coding process began. I identified preliminary themes, highlighted relevant quotations, and began to group the material into categories. Because of the small number of interviews, although saturation was not reached, there was enough consistency in the responses to indicate a number of emerging themes.

Evidence of Quality

Lincoln and Guba (1985) put forward four standards to establish the trustworthiness of qualitative research and suggested they be used as an alternative to more traditional quantitatively oriented criteria. I preserved the trustworthiness of the research by implementing the four standards put forth by Lincoln and Guba: *credibility, transferability, dependability*, and *confirmability*.

Credibility is the degree to which findings and interpretations are plausible and there is confidence in the "truth" of the findings (Lincoln & Guba, 1985). The credible qualitative researcher provides comprehensive descriptions of the setting, subjects,

procedures, and interviews, so that the limitations and restrictions of the study are clearly laid out. Lincoln and Guba recommended a number of techniques to ensure credibility. I used three of those techniques in this study: triangulation, peer debriefing, and member checking.

Triangulation was the first technique employed to maintain credibility throughout the study. This cross-checking technique can use multiple sources, methods, investigators, or theories (Creswell & Plano-Clark, 2011). I used two methods of collecting the data (quantitative surveys and qualitative interviews) to verify participants' meanings and thereby ensure credibility. I triangulated the quantitative and qualitative data when I interpreted the results and wrote the conclusions of the study.

Peer debriefing is the process of allowing an impartial peer to analyze the inquiry and ask questions of the researcher (Lincoln & Guba, 1985), and when paired with other strategies such as prolonged engagement, member checks, and triangulation can support the findings as reliable and credible (Spall, 1998). This approach may reveal certain aspects of the inquiry that may spur a new perspective. I selected a respected colleague with a PhD and specialty in research design to support this phase of the study. Peer debriefing permitted me to vocalize thoughts and hypotheses, and the dialogue with the debriefer encouraged me to delve deeper into the preliminary analyses of the data (Spall, 1998). I met with the peer debriefer weekly during data analysis and the peer debriefer reviewed the report of the results. Finally, the peer debriefing provided a cathartic environment whereby I was free to clear my mind of all sentiments that may have biased the interpretation of the results.

Member checking was the final technique used to ensure credibility. Informal member checking allowed participants to clarify intentions, correct errors, volunteer additional information, and provide an assessment of what has happened. Informal member checking also allowed me to consider the suitability of the responses and summarize them (Lincoln & Guba, 1985). Formal member checking involved sending a summary of the findings to participants for subsequent modification and clarification, prior to writing the discussion section of the dissertation. Formal member checking has its concerns. I ensured I did not reconstruct an overly generalized account of what occurred and was aware of any myths or attempts to cover up what had occurred (Lincoln & Guba, 1985). Another area of concern was in the transcription of the interviews. The way the interviews are transcribed can impact member checking and the method of transcription (verbatim, condensed, or cleaned-up versions) must be chosen carefully (Carlson, 2010).

I employed the aforementioned techniques—triangulation, peer debriefing, and member checking—during the qualitative phase of the study to ensure credibility and quality of the results. Three criteria furthered trustworthiness and quality once the study was completed: transferability, dependability, and confirmability are de facto results of research that is well conducted.

In qualitative research, the ability to take the results from one study and apply them to another study is referenced as transferability (Lincoln & Guba, 1985). The researcher does not define the parameters for transferability; instead, the researcher provides rich and detailed information. The research report is a rich description that "closely approximates the reality it represents" (Strauss & Corbin, 1990, p. 55). The

reader then makes the determination as to whether the results can be applied to a new situation or framework.

To establish dependability and confirmability of the results, I conducted an audit trail. The audit trail "provides evidence in the form of data and documents such as excerpts from field notes, transcripts, and research diaries, etc. which the researcher's peers, the auditors of the research, can follow" (Holloway, 1997, p. 92). To maintain an audit trail I maintained records of each step in the data-collection and data-analysis process. I will continue to save all Word files, interview transcripts, personal notes, and drafts for at least 5 years, so that other researchers will be able to follow and replicate the process (Carlson, 2010).

Protection of Participants' Rights

I sought permission to conduct this study from Walden University's Institutional Review Board and the Superintendent of Schools in the district where the study was conducted. I followed procedures to ensure participants were protected. I defined the purpose for conducting the study and balanced that purpose with the privacy of the participants. Improprieties resulting from these cross purposes can be avoided by ensuring that proper ethical procedures are in place and participant rights are protected at all costs. The choice to take part in any research study must be an informed decision and must be completely deliberate on the part of the participant. I took all necessary precautions to ensure the rights of human participants. The initial email to potential participants established how I intended to protect their rights and who to contact if they had any questions.

Survey Informed Consent and Confidentiality

At the beginning of the online survey I explained the title and purpose of the study, procedures for completing the surveys, potential risks and benefits, the confidentiality policy, and the withdrawal policy. I included a statement at the beginning of the online survey that explained informed consent and established that completion of the study survey constituted informed consent. Participants were required to check an "I understand" box on the first page of the survey indicating they agreed to participate in the study. The first page of the survey also contained the phone number of who participants could contact if they had any questions or concerns. Once the doctoral study was completed, the superintendent received a summary of the study results.

To protect participants' identity, I assigned them code numbers. The first two digits of the code identified the school; the last three digits of the code established a participant number. The password-protected website, Constant Contact, hosting the online surveys, was no longer accessible to participants after the last day of the survey period.

The electronic results of the online surveys and all raw data were transferred from Constant Contact to a password-protected computer in my home office. After 5 years, the electronic results will be erased.

Interview Informed Consent and Confidentiality

At the beginning of the interview, I apprised each participant of their rights to informed consent, what informed consent means, why it is necessary, and their right to choose not to participate in the study at any point. At the time of the interview, I also told

participants who to contact should they have any questions. A copy of the informed-consent form appears in Appendix F.

To preserve confidentiality, I referenced interview participants by an alphabetical code. For example, Mary Jones would have been coded as MJ. I transcribed the digital recordings of the interviews and saved them as text files. I removed all identifying information from the transcripts. I erased the digital recordings and saved only the text files. I transferred the text files to a flash drive and stored in my home in a locked file drawer where they will remain for 5 years. After 5 years the flash drive will be reformatted, erasing all the data it contains.

Researcher's Role

In 31 years as an educator in a single New Jersey public school district, I served as a special educator, a regular educator, a master teacher, a staff developer, and a coach. I had the occasion to work with an exemplary leader who had vision, inspired greatness, and had long-range goals. This experience left a lasting impression. I was then transferred to a new teaching environment. I observed quite a different sense of teaching self-efficacy in the new leadership situation. I was also an instructional coach for 2 years in the large urban district I served for 31 years, affording me the opportunity to interact with novice educators. In this capacity I sought to ensure that educators stayed in the profession.

I chose to complete this study in a school district in which I have never been employed, nor do I know anyone in the district. I also chose this district because I have no knowledge of the leaders or their leadership style. For this study, I was the sole person responsible for collecting quantitative and qualitative data. I ranked the scores and

decided which participants would be eligible for follow-up interviews. I also conducted the interviews, took notes during the interviews, and transcribed the interview data. I coded the qualitative data to derive themes.

In conducting the interviews with teachers, I believe that my experience enabled me to establish a trusting researcher–participant relationship. The participants did not know me nor I them. Again, it was critical to bracket my passion for the subject and my personal experiences during the interviews. The interviews began with some background about me; then I asked the interviewee to share some background about themselves. This sharing was meant to put the interviewee at ease and to establish rapport.

Summary

This section has provided the methodology I used to conduct the study. I described the sequential explanatory mixed-method design and laid out the setting, sample, and participant selection. I used two survey instruments, the SSB and the TSES, in the quantitative phase to correlate leadership-behavior variables with teacher-efficacy variables. I gathered the data from the two surveys through the Internet from a secure site to which only I had access. I used the Pearson product-moment correlation to measure correlations between leadership behaviors and teacher-efficacy scores for the two surveys.

The qualitative phase began after all surveys had been scored. Based on the scores of the TSES, I used a purposeful-sampling strategy to select participants for interviews. I recorded, transcribed, coded, and analyzed the interviews for themes pertaining to the relationships of interest in the study. I used credibility, transferability, dependability, and confirmability techniques to maintain the trustworthiness of the study results and

procedures for informed consent, and maintained confidentiality. I combined the quantitative and qualitative results during the interpretation of results.

Section 4: Results

Introduction

The purpose of this sequential mixed-method study was to examine the leadership behaviors associated with the development of personal teacher efficacy. The predictor variables were leadership behaviors displayed by principals as perceived by the teachers: trust, human relations, conflict, control, and instructional leadership. The criterion variables were the effect the behaviors have on personal teacher efficacy (engaging students, strategizing instructional practices, and managing classrooms; Tschannen-Moran &Woolfolk-Hoy, 2001). I employed the sequential mixed-method approach using a survey and individual interviews to address the research questions of the study. In this explanatory mixed-methods design, I began by conducting a quantitative phase and followed with a second phase (Creswell & Plano-Clark, 2011, p. 1015). The quantitative and qualitative results were integrated during the analysis phase of the study.

The rationale for using quantitative and qualitative data was to balance the limitations inherent in one method with the strengths of the other method. This design allowed for the integration of quantitative and qualitative analysis during the interpretive phase. Here, I will explain the convergence of findings and explain lack of convergence. The most important advantage of the concurrent design is that I could achieve a broader viewpoint by using different methods to obtain data. The disadvantage to using this approach was that I found no recommendations about how I should resolve inconsistencies that came about as a result of using two types of data, which may have influenced the interpretation of the results (Creswell, 2003).

The study incurred two unexpected limitations: the sample size and the number of volunteers who completed the interviews. Originally, I planned for 30 participants to respond to the survey, however only 19 responded. I also planned to interview 10 participants, but only four were willing to be interviewed. Therefore, the data analysis was limited by the data that were actually obtained.

I made every effort to obtain the needed responses for both the qualitative and quantitative data. Incentives were given; email contact was repeatedly made. Principals' assistance was enlisted to contact and secure the number of respondents. As a result of the low response rate, I made an adjustment to the quantitative analysis, and used descriptive statistics were used. The low response rate and adjustments in the qualitative analysis led to the study being more of a descriptive case study than a mixed-methods study.

Quantitative Data Analysis

Data Management and Scoring

I downloaded the data into Excel from Constant Contact, an online survey service. The data consisted of the item-by-item responses by each teacher for each of the instruments in the survey. I then converted the Excel file to SPSS for data screening, scoring, and subsequent statistical analysis.

As described in Section 3, the instruments consisted of a short demographics form, the TSES, and the SSB. The TSES, a Likert-type scale (Tschannen-Moran et al., 1998) distributed into three subscales (variables in the study): engaging students, strategizing instructional practices, and managing classrooms. The SSB (Bulach et al., 1999**)** consists of 49 behaviors that measure teachers' perceptions of their principal's

leadership style. Although there were data for 24 teachers, five of them did not respond to any of the TSES items and were removed from the study leaving an *N* of 19. The TSES and the SSB were then scored according to the scoring instructions for each instrument. The scoring resulted in five subscale (domain) scores and three efficacy scores for each of the 19 teachers.

I then screened the scores for outliers, extreme high or low individual scores that may have unduly influenced the statistics based on the total group. To screen for outliers the raw scores for each teacher on each of the instruments were transformed to standardized *z*-scores with a mean of zero and standard deviation of 1 (Gravetter & Wallnau, 2013, p. 523). The criterion for identifying an outlier was set at a *z*-score of +/-3.29, which indicates the score was more than three standard deviations from the group mean and is considered extreme. No outliers were identified that approached this criterion.

Survey Participants

Table 2 shows the teacher characteristics on three demographics. Because the *N* of 19 is small, the numbers (*n*) in the table are perhaps more meaningful than the percent column. The majority of teachers held bachelor's degrees. Of the 19 responders, only three had less than 1 year of experience. More than half of the participants had 6–10 years of teaching experience and more than half were teaching in a participating school for 2–5 years. I did not determine how long they had been assigned to their current school.

Table 2

Education and Teaching Demographics of the Teachers (N = 19)

Variable	*n*	%
Highest degree		
Bachelor's	12	63.2
Master's	7	36.8
Years teaching in participating school		
Less than 1 year	3	15.8
1 year but less than 2 years	6	31.6
2–5 years	10	52.6
Total number of years teaching		
This is my first year	2	10.5
2–5 years	5	26.3
6–10 years	12	63.2

Quantitative Survey Analysis

I provide the descriptive statistics on each of the eight scales in Table 3. Scale reliabilities are shown in the last column (α). Most previous researchers using the SSB and TSES reported that both instruments showed adequate reliability. However, although an instrument may be reliable based on the sample used in another study, there is no guarantee that it will be reliable when a different study with a different sample is conducted. Thus, an initial step in this analysis was to obtain the reliability (Cronbach's alpha) for each of the eight scales. Conventionally, a reliability coefficient of approximately .70 or greater is considered to be adequate when conducting group statistical analysis on an instrument (Gravetter & Wallnau, 2013, p. 221). Observation of the reliabilities, shown in Table 3, indicated that all but one were above .70. The

reliability for instructional strategies (α = .63) was less but was near enough to .70 to be retained in the study.

Table 3

Means and Standard Deviations for Five Domains of Principal Behaviors, Three Measures of Self-Efficacy and Reliability Coefficients (Cronbach's α)

Variables	*M*	*SD*	α
Behaviors			
Human relations	4.07	.56	.86
Trust/decision making	4.21	.40	.77
Instructional leadership	4.29	.61	.89
Control	3.96	.62	.71
Conflict	4.21	.62	.79
Self-efficacy			
Engagement	7.39	1.08	.86
Instructional strategies	7.70	.77	.63
Management	7.51	.97	.88

The mean of the five principal behaviors and the three self-efficacy scales indicated that, overall, teachers perceived their principals favorably and considered themselves confident with respect to self-efficacy about student engagement, instructional strategies, and student management. The SSB (see Appendix A) shows the ratings of principals, ranging from 1 (*never*), 2 (*seldom*), 3 (*sometimes*), 4 (*often*), to 5 (*always*) in exhibiting a particular behavior. The higher the rating, the more favorably the principal is viewed. The means shown in Table 3 indicated that, as a group, teachers rated principals near and above 4 on each of the five domains, indicating they often or always perceived the principals to be exhibiting desirable behaviors.

The teachers rated the TSES (see Appendix B) items with respect to their self-efficacy when addressing student engagement, instructional strategies, and management. The prompts asked teachers, "How much can you do?" followed by 24 items representing the three areas. The teachers responded to each item on a 9-point scale ranging from 1 (*nothing*) to 9 (*a great deal*). The higher the rating, the greater the self-efficacy; ratings of 6 or greater showed high self-efficacy. The three self-efficacy means shown in Table 3 are more than 7, indicating self-efficacy was high for the group of teachers.

The quantitative portion of the study included research questions about the teachers' perceptions of their sense of efficacy in respect to student engagement, instructional strategies, and classroom management as associated with the principals' domains of human relations, trust/decision making, instructional leadership, control, and conflict. Thus, there were 15 research questions. The questions (RQs) and associated null (H_0) and alternative (H_a) hypotheses are repeated from earlier sections as follows:

RQ1. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement?

H_{01}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement.

H_{a1}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement.

RQ2. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies?

H_{02}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies.

H_{a2}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies.

RQ3. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management?

H_{03}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management.

H_{a3}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management.

RQ4. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement?

H_{04}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement.

H_{a4}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement.

RQ5. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies?

H_{05}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies.

H_{a5}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies.

RQ6. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management?

H_{06}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management.

H_{a6}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management.

RQ7. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement?

H_{07}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement.

H_{a7}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement.

RQ8. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies?

H_{08}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies.

H_{a8}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies.

RQ9. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management?

H_{09}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management.

H_{a9}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management.

RQ10. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in student engagement?

H_{010}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the control and their sense of efficacy in student engagement.

H_{a10}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in student engagement.

RQ11. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies?

H_{011}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies.

H_{a11}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies.

RQ12. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management?

H_{012}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management.

H_{a12}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management.

RQ13. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in student engagement?

H_{013}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict and their sense of efficacy in student engagement.

H_{a13}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in student engagement.

RQ14. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies?

H_{014}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies.

H_{a14}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies.

RQ15. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management?

H_{015}: There is no statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management.

H_{a15}: There is a statistically significant correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management.

I used bivariate correlation to test the null hypotheses. The .05 level of probability was the criterion used for rejection. Statistical significance is the probability of observing

results as extreme as those observed if the null hypothesis is true. However, statistical significance provides no evidence about the magnitude of the size of a correlation regardless of the probability level achieved. For this reason it is recommended that effect sizes be reported and interpreted in addition to statistical significance results (American Psychological Association, 2009, p. 34). Thus, the statistical results are reported first followed by the effect size results.

For the statistical tests I correlated each of the three measures of self-efficacy with each of the measures of principal behaviors, resulting in 15 correlations in all. Table 4 provides the results of the hypothesis tests**.** The actual probabilities (*p*) are shown associated with each correlation (*r*). For a correlation to be statistically significant, the *p* value had to be .05 or less. It may be seen in the table that there were two statistically significant correlations, shown in bold type. The correlations between the self-efficacy measure of engagement and instructional leadership ($r = .53$, $p = .02$) and conflict ($r = .51$, $p = .03$) were both statistically significant. Thus, hypotheses H_{07} and H_{013} were rejected for engagement, showing support for the positive relationship between engagement and instructional leadership and conflict. I found no other statistically significant correlations between the measures of self-efficacy and principal behaviors.

Table 4

Intercorrelations for Five Domains of Principal Behaviors and Three Measures of Self-Efficacy

	Self-efficacy measures					
	Engagement		Strategies		Management	
Domain	*r*	*p*	*r*	*p*	*r*	*p*
Human relations	.19	.44	.28	.25	.07	.79
Trust/decision making	.43	.07	.10	.67	.12	.64
Instructional leadership	**.53**	**.02**	.16	.51	.23	.34
Control	.33	.17	.30	.22	.23	.34
Conflict	**.51**	**.03**	.37	.12	.29	.22

The correlation coefficients shown in Table 4 may also be used as indicators of effect sizes and especially useful for these data because of the small sample size. An effect size is independent of sample size and provides information about the strength or magnitude of a correlation regardless of whether the correlation is statistically significant (Newton & Rudestam, 2013). An effect size is considered to be a measure of the magnitude of the correlation between two variables and covers the entire range of a relationship from no relationship at all ($r = 0$) to a perfect relationship ($r = 1$, or $r = -1$) (Gravetter & Wallnau, 2013).

Commonly used criteria (Newton & Rudestam, 2013) to interpret a correlation coefficient as an effect size is as follows:

Weak effect size: .10

Moderate effect size .30

Strong effect size .50

Observation of the correlations in Table 4 between the self-efficacy measure of student engagement as it related to the principals' measures on Instructional Leadership (r = .53) and Conflict (r = .51) can be considered strong effect sizes using the criterion of .50. The Trust/Decision Making relationship with Engagement (r = .43) showed a moderate-to-strong effect, whereas the Control relationship with Engagement (r = .33) shows a moderate effect size using the criterion of .30.

In summary, the quantitative analyses resulted in two statistically significant correlations ($p < .05$) that can be considered to show positive relationships between the self-efficacy and principal-behavior measures. Whereas statistical significance is the probability of observing correlations as extreme as those observed if the null hypothesis is true, it provides no information about the importance of the correlations. By including effect sizes, the magnitude or importance of relationships is emphasized.

Qualitative Data Analysis

Interview Transcription and Coding

I taped the interviews using a digital recorder and transcribed them word for word, typed into a Word document. I then created an Excel Workbook with a spreadsheet for each of the four participants' interview responses. I copied and pasted the responses from the Word document into the Excel spreadsheet in the appropriate cell for each of the 15 relationships studied. I then highlighted the commonalities and discrepancies found in the responses and began to group the responses into categories or themes.

Interview Participants

Of the 19 teachers who completed the survey, four agreed to participate in the follow-up interview. As shown in Table 5, three of the four were new teachers with 5 or

fewer years of experience. Although overall TSES scores were high in this sample, interview participants ranked near the top, the bottom, and the middle range of scores.

Table 5

Teacher Sense of Efficacy Scale Score, Rank, and Years of Teaching Experience of the Teachers (N = 4)

Pseudonym	TSES Score	Rank 1–19	Years of teaching experience
Hillary	199	2	3–5
Lori	143	18	2
Miriam	173	10	3–5
Nola	178	7	More than 10

Note. TSES = Teacher Sense of Efficacy Scale.

Hillary (high TSES score, pseudonym) ranked second on the TSES Scale (199) out of the 19 people who responded to the survey. Hillary has been teaching between 3 and 5 years in a small neighborhood school with a team teacher in the room at all times. Hillary said the principal is very supportive. “She’s behind me 100%. … It’s always WE, it’s not going to be just I.”

Lori (low TSES score) ranked 18th of 19 on the TSES Scale (143). She has the least amount of teaching experience of the 19 in the sample and works in a larger middle school environment. She transitioned from corporate America and feels she is in a coaching relationship with her principal. She compares her principal to a mentor who “is big on communicating with us.”

Miriam (middle TSES score) ranked in the mid range of the TSES Scale (173). Miriam also has 3–5 years of teaching experience. Miriam also feels the she has 100%

the principal's support. Miriam felt she has a good relationship and when it comes to trust she said, "I do trust my principal."

Nola also fell in the mid range with a TSES score of 178. Nola has more than 10 years of teaching experience. Her responses indicated, "If you are a seasoned teacher, you do what you need to do for your students regardless of your principal." Nola replied that principal behaviors do not impact her engagement or strategies of management efficacy. Her data are incongruent with the quantitative results and the results from the three novice teachers. Because her responses consistently indicated she saw no relationship between principal behavior and her self-efficacy, I did not include her data in the thematic descriptions below.

Qualitative Interview Analysis

The qualitative portion of the study addressed the following questions:

RQ16. How do teachers describe the relationship between principals' behaviors in the human-relations domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ17. How do teachers describe the relationship between principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ18. How do teachers describe the relationship between principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ19. How do teachers describe the relationship between principals' behaviors in the control domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

RQ20. How do teachers describe the relationship between principals' behaviors in the conflict domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

The three novice teachers indicated various ways in which principal behaviors supported their developing sense of teacher efficacy. Four themes emerged from the interviews. The teachers formed *strong connections* with their principals. The principals created *structure* and provided *guidance* and *support*. The strong bond they developed with their principal encouraged them to engage with the principal and in turn improved student engagement in the classroom. Principals modeled instructional strategies and provided guidance to help these new teachers improve their strategies for classroom instruction. Finally, principals established routines that promoted order in the school. This structure helped teachers manage their own classrooms and focus on learning rather than discipline.

Strong connections. The three novice teachers told me they felt they had formed a bond with their principals. Lori felt a connection to her principal and viewed the principal as a mentor. Lori reflected on how this relationship increased her efficacy because she was "comfortable enough to take everything he says and implement it into my classroom." Hillary felt a strong connection to her principal and stated: "so it's forming that bond. If you have that bond with your principal, it's going to definitely affect how you see what you do in the classroom." Miriam added: "if you love your

principal and you love the people you work with, you wanna be there every day." Hillary and Miriam explained how the principal went beyond necessity for all the staff and was concerned for all of their welfare. Hillary and Miriam both observed that without the sense of connection to the principal, it would be difficult to seek advice from the principal. Because of the strong positive connection with the principal, these teachers were not fearful when the principal came into the classroom. They had marked respect for their principals, and this bond enabled them to create a positive, respectful environment in their classrooms that would support student learning.

Support. All three participants cited various ways the principal supported them. Each principal demonstrated support in developing a sense of self-efficacy when dealing with classroom management or students' disruptive behavior. Hillary said her "principal cares 100%," and continued, "Since my principal is so supportive, I am able to discipline and trust that there will be follow through." Miriam added that because the principal was supportive, she was "more confident in dealing with disruptions," and she felt "more confident when we're dealing with students in helping engage them."

Another example of support came from a principal who provided needed resources for a teacher to complete an educational task. Lori described a situation in which she needed something done and had no idea how to do it. She knew her principal would help her, and provided the resources she needed to get it done. After that experience she was even "more comfortable and more at ease to ask" for support. With a supportive environment, teachers said they were able to ask more questions, try new things, instill discipline in classrooms, and begin to develop a strong sense of their "teacher" self.

Guidance. Each of the participants indicated that their principals provided guidance when needed. They were knowledgeable about lesson planning and the curriculum, encouraged different ways of thinking, and were frequently visible in the classroom, Lori, a transplant from the corporate world, told me, "with [the principal]'s guidance and direction, it helps me develop my lesson plans and different ways of thinking [about] the whole instructional strategies." She also related how

> listening to him as he holds his professional development—especially in the summer before my first year—listening to him show us, give us guidance on these, the instructional strategies you use, these are things that possibly work, this is how you could reach higher order thinking and all that stuff. I soaked it all in and used it as a positives. (Lori interview)

Hillary stated that her " principal's knowledge on curriculum is amazing." Hillary also shared that because her principal researched questions for her, she was "more comfortable going into the classroom" knowing that she had the information she needed and the guidance of a more experienced classroom leader. Miriam talked about how appreciative she was that the principal was often in her room. According to Miriam,

> So when she comes in, it is to help me to see another way to teach them. That's how I view it every time. So when she walks in the room, you don't tense up and go: "Oh my gosh here's the principal."

With feedback and guidance from the principal, the teachers continued to build their confidence about their abilities to engage students and devise appropriate instructional strategies.

Structure. For these three teachers, the principals created structures that supported them to manage and maintain discipline in their classrooms. Miriam said that "knowing where to go in situations if there's disruptive behavior, who's supposed to address it" helped her manage her classroom. Similarly, Hillary noted "the structure and routine is clear. The students know what is expected and know the consequences." Lori added, "by establishing routines with the whole lesson plan thing, when they (principal and vice principal) provide you the feedback, you know that this is what's expected, and these are the areas of improvement—that alone will establish routine." Hillary, Lori, and Miriam all assured me that because the principal had established structure in the school, they were able to establish a structure in their classroom. All three participants discussed the importance of established expectations and consequences. This structure allowed teachers to focus on honing their skills and meeting the needs of the students, rather than focusing on classroom discipline.

Evidence of Quality

To ensure credibility of the results, I used triangulation of quantitative and qualitative, peer debriefing with a qualitative research expert during the qualitative data analysis, and member checking. I compared and reported the quantitative and qualitative data when I interpreted the results and wrote the conclusions of the study to show how they fit together. The interview participants had the opportunity to review their transcripts after each interview. I spoke with them on the phone to allow them to elaborate on their responses as needed. Member checking was conducted via individual phone calls with the participants following data analysis. This process allowed participants to clarify meanings, intentions, and volunteer additional information. I called each participant to

review my interpretation of the findings. During the qualitative data analysis, I conferred with a data expert on a weekly basis. Our discussions focused on one participant each week. Together we would review the responses, and then decided what, if any, themes where prevalent .To ensure trustworthiness, a rich description of participant themes was provided. An audit trail included a detailed account of the data collection and data analysis processes, which were presented in the order they were collected. Additionally, the Word documents for each of the participant's transcripts and the Excel spreadsheets I created during the qualitative data analysis, as well as the quantitative analyses I conducted, were contained in the audit trail. I also kept notes of the process of how the themes emerged and why I felt those themes were valuable.

Summary

Three teachers with 5 or fewer years of teaching experience described the substantial impact of principal behaviors on their teacher self-efficacy. The themes that emerged were strong connections with the principal, and support, guidance and structure provided by the principal. One teacher with more than 10 years of experience reported that principal behavior did not impact her teacher self-efficacy. The quantitative analyses resulted in two statistically significant correlations ($p < .05$) that can be considered to show positive relationships between the self-efficacy and principal-behavior measures. The 2 significant relationships were instructional leadership with teacher engagement, and conflict with teacher engagement.

Section 5: Interpretations, Recommendations, and Reflections

Overview

According to Calik et al. (2012), more inquiry about teachers' self-efficacy, and principals' leadership behaviors that affect teacher efficacy is needed. The purpose of this mixed-method study was to ascertain the leadership behaviors associated with the development of personal teacher efficacy. The predictor variables were the leadership behaviors displayed by principals: trust, human relations, conflict, control, and instructional leadership. The criterion variables were the effect those behaviors had on personal teacher efficacy (engaging students, strategizing instructional practices, and managing classrooms; Tschannen-Moran & Woolfolk-Hoy, 2001).

In 1986 Ashton and Webb stated that student success depends on effective teachers and in 2011 Killion and Hirsh reiterated that same statement. The manner in which principal leaders influence the development of teacher efficacy are not well understood. Kass (2013) noted that there is an association between teacher self-efficacy and the behavior of the principal. According to Walker and Slear (2011) influencing teacher efficacy is one of the most important roles of the principal. They further believed that human relations characteristics such as communication and consideration were found to be important factors in supporting teacher efficacy. In a 2012 study, Kaniuka noted that leadership can affect teacher capacity and that the findings should be used to assist with in understanding of how that happens.

Studies have shown the importance of leadership in education, and education is an area that is morally grounded, based on values, and in need of passionate and caring

leaders (Drew, 2009; Hallinger, 2005). However, few studies offered results that would allow principals to develop their leadership behaviors.

Leadership abilities are marked by several characteristics: trust/decision making, instructional leadership, and control. In cases of trust/decision making, if teachers feel the principal cannot make a good decision, then it follows that teachers will not trust them (Bulach et al., 2006). Instructional leadership is another important influence on teacher efficacy. Instructional leadership deals with the overall educational goals for students. The principal as an instructional leader manages the curriculum, assesses instruction, and has a clear vision for the school (Jenkins, 2009). Control is an aspect of principal behavior that may have an effect on teachers. When principals talk about *my* school and *my* teachers, it sends a message that the principal owns the school; teachers begrudge this verbiage and feel the principal has an inflated sense of self (Bulach et al., 2006). The final domain included in the model of principal behavior is conflict. The way the principal handled conflict was a model for the teachers who, in turn, handled conflict in their classrooms using the same strategies as the principal.

The essential question of this study was: What are the correlations between leadership behaviors and teacher perceptions of self-efficacy? Specifically the quantitative portion of the study included the following subquestions:

RQ1. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in student engagement?

RQ2. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in instructional strategies?

RQ3. Is there a correlation between teachers' perceptions of principals' behaviors in the human-relations domain and their sense of efficacy in classroom management?

RQ4. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement?

RQ5. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in instructional strategies?

RQ6. Is there a correlation between teachers' perceptions of principals' behaviors in the trust/decision-making domain and their sense of efficacy in classroom management?

RQ7. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement?

RQ8. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in instructional strategies?

RQ9. Is there a correlation between teachers' perceptions of principals' behaviors in the instructional-leadership domain and their sense of efficacy in classroom management?

RQ10. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in student engagement?

RQ11. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in instructional strategies?

RQ12. Is there a correlation between teachers' perceptions of principals' behaviors in the control domain and their sense of efficacy in classroom management?

RQ13. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in student engagement?

RQ14. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in instructional strategies?

RQ15. Is there a correlation between teachers' perceptions of principals' behaviors in the conflict domain and their sense of efficacy in classroom management?

The qualitative portion of the study included the following subquestions:

16. How do teachers describe the relationship between principals' behaviors in the human-relations domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?
17. How do teachers describe the relationship between principals' behaviors in the trust/decision-making domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?
18. How do teachers describe the relationship between principals' behaviors in the instructional-leadership domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?
19. How do teachers describe the relationship between principals' behaviors in the control domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?
20. How do teachers describe the relationship between principals' behaviors in the conflict domain and their sense of efficacy in student engagement, instructional strategies, and classroom management?

A mixed-method approach was used in this study and the data showed that teachers reported principal behaviors impacted their sense of teacher self-efficacy. The relationship between principal behaviors (in the domains of human relations, trust/decision making, instructional leadership, control, and conflict) and the three types of teacher self-efficacy (student engagement, instructional strategies, and classroom management) were indicated by the quantitative results**.** The quantitative analyses resulted in two statistically significant correlations ($p < .05$) that can be considered to show positive relationships between the self-efficacy and principal-behavior measures.

The 2 significant relationships were instructional leadership with teacher engagement, and conflict with teacher engagement.

The qualitative findings with the three novice teachers indicated various ways in which principal behaviors supported their developing a sense of teacher efficacy. Four themes emerged from the interviews. The teachers formed *strong connections* with their principals. The principals created *structure* and provided *guidance* and *support*. The strong bond they developed with their principals encouraged them to engage with the principal and in turn improved student engagement in the classroom. Principals modeled instructional strategies and provided guidance to help these new teachers improve their strategies for classroom instruction. Finally, principals established routines that promoted structure in the school. This structure helped teachers manage their own classrooms and focus on learning rather than discipline

Interpretation of Findings

The quantitative analyses indicated two statistically significant correlations. There was a statistically significant positive correlation between Instructional Leadership Behaviors and Student Engagement and between Conflict Behaviors and Student Engagement. Overall, teachers perceived their principals favorably and considered themselves confident with respect to self-efficacy about student engagement, instructional strategies, and student management.

In the current study, for the Human Relations Domain, the effect size was moderate for one of the three types of teacher self-efficacy, indicating that human relations is, indeed, an important skill for principals. Donaldson, Marnik, Mackenzie, and Ackerman (2009) believe that “the most effective principals operate from a value system

that places a high priority on people and relationships." Stipek (2012) and Liu (2013) found that a supportive principal was not only linked to higher levels of teacher efficacy that the principal's support also influenced teacher efficacy.

In the area of trust/decision making, the quantitative data showed a moderate-to-strong effect size for teacher–student engagement, supporting Ware and Kitsantas (2007) found that principal feedback was important to teacher efficacy. In the current study, in the area of instructional leadership, under the engagement domain, there was a strong effect size, and a weak-to-moderate effect for classroom management. The three novice teachers who were interviewed all noted that they looked to their principal for guidance and support. In contrast, Ryan (2007) concluded that there was no relationship between teachers feeling supported and their sense of efficacy.

In the control domain the analysis yielded a moderate effect size for the Engagement and Strategies domain and a weak-to moderate effect for Classroom Management. Three participants interviewed in the qualitative portion of this study felt a strong connection with their principals and thought their principal used control in a positive manner to create structure and predictability.

In the behavioral domain of conflict, the relationship with student engagement showed a strong effect. The conflict domain also showed a moderate relationship to strategies and classroom management. During the interviews, three participants found that their principal was very good at confronting conflict in a positive manner.

Türker, Duyar, and Çalik (2012) suggested that there was a significant relationship between principal leadership and teacher self-efficacy. In 2011, Walker and Slear found that there was a link between principal behavior and teacher efficacy.

Influence is often indirect, works through others, and happens best by developing teachers' efficacy in curriculum and instruction, and engagement.

In the current study, principal behaviors showed effects on classroom engagement, teaching strategies, and classroom management principal trust/decision making, instructional leadership, control, and conflict management had a positive effect on teacher engagement. Human relations, control, and conflict management had a positive effect on teacher strategies. Instructional leadership, control, and conflict management had a positive effect on classroom management.

These findings suggest that the leadership behaviors in the leadership model proposed by Bulach et al. (2006) are useful in identifying behaviors that influence teacher efficacy and should be used as a basis for further research as well as practical application. Principal human relations, trust/decision making, instructional leadership, control, and conflict management all influenced some aspect of teacher efficacy and should be included in principal training and development programs.

Implications for Social Change

If the level of teacher efficacy becomes one of the standards for teacher accreditation, it would be advantageous for leaders to develop behaviors that support the development of teacher efficacy. This change in the field of education might lead to a higher ability to engage students, strategize instructional practices, and manage classrooms.

To ensure that every child develops to their peak potential, the educational community must focus on policies and procedures that increase teacher efficacy and leadership behaviors proven to increase efficacy. The quantitative analyses resulted in

two statistically significant correlations that can be considered to show positive relationships between the self-efficacy and principal-behavior measures. The two significant relationships were instructional leadership with teacher engagement, and conflict with teacher engagement. These relationships must be explored and leveraged to improve teacher efficacy because of the potential to increase student learning. School leaders should be trained and encouraged to focus on supporting teachers in the interest of preparing future citizens to take on the challenges of a global knowledge society. Preparing school principals to become better leaders may result in positive changes for individuals (both new teachers and their students), for communities in building more successful schools, and the larger society by preparing future citizens.

Recommendations for Action

Using these findings to better prepare future educators and educational leaders will create better educational environments for students. Principal instructional leadership and conflict, both had important correlations with teacher engagement. The following are my recommendations for actions based on these findings:

Instructional Leadership

The principal must understand the daily workings of the classroom and provide meaningful feedback to teachers. A report by the Center for American Progress in 2011 recommended that principals are responsible for putting in place instructional systems that leverage observation and feedback to improve instruction. Three interviewees in this current study stated how important this was to them. Therefore, it is important that principals be master teachers whose focus is teaching and learning. According to Loeser (2014) the principal is the lead teacher in the school, who promotes the ongoing

development of better and more effective practices and methods, which lead to student improvement. Perhaps before giving out a principal certificate or master's degree, principal candidates must prove they can effectively teach in a classroom and can observe and evaluate in a manner that increases teacher efficacy. Principals must also have a working knowledge of curriculum, experience in developing curricula, and trends in education. Higher education stakeholders need to rethink principal preparation, develop intern programs, and recognize the importance of principals as master teachers. Dunaway, Flowers, Lyons and Lee article in 2010 reinforced the need for changes in higher education and concluded that there is a need for improvement in administrator preparation programs.

Conflict

How a principal handles conflict can be crucial to the climate of the school. Three interviewees viewed conflict and dealing with conflict as important. If the principal consistently avoids conflict, they send a message to teachers that they do not want to address the issues. Teachers have to know they are supported when addressing situations that can be problematic. Principals need to have the skills to address conflict. Bulach (1993) noted that principals need to view conflict as an opportunity to improve the climate in the building. Conflict management should be included as part of training administrators.

To summarize, colleges and universities need to ensure that their principal programs are preparing would-be candidates in leadership skills, curriculum development and teaching methods. Shantal, Halttunen and Pekka (2014) found that principals lacked training in interactive teaching methods and how to meet the professional needs of

individual teachers. Intern programs would be a real-life solution to ensure principal candidates receive on-the-job training they need. Districts need to make every effort to choose principals based on the types of behaviors discussed in this study. Districts also need to ensure mentor programs are in place so that novice principals have "model principals" to use for support. The results of this study suggest that leadership behaviors influence teacher efficacy.

I will share the results of the study with district administrators and teachers. I will also share the findings with Dr. Bulach, the author of model of leadership behaviors used in this research. It is anticipated that through research published by Dr. Bulach and myself, the results of this study will reach a large audience.

Recommendations for Further Study

After completing this study, it is evident that there is a need for continued research on the effect of principals' behaviors on teacher efficacy. Bitto and Butler (2010) also agree that more research is needed to define the factors that strengthen teacher efficacy. First, this study needs to be replicated on a larger scale. The statistically significant correlations between the self-efficacy measure of engagement and instructional leadership ($r = .53$, $p = .02$) and conflict ($r = .51$, $p = .03$) show promise and need to be investigated further with beginning teachers to establish a robustness of these findings. The measure used in this study for principal behaviors shows promise for pinpointing behaviors that can be modified to promote teacher efficacy. Future studies should consider using this instrument to build on the results of the current study.

Researcher Reflection

Entrenching myself in articles, chapters from books, and papers presented at conferences gave me a background for understanding what was to come in the actual collection of data. Reading research, becoming an "expert" in my topic, and designing the research questions were not easy. My naiveté with regard to the dissertation process led me to believe that finding a district to partner with would be easy and that collecting the data would be a "simple" thing to do.

Having spent 31 years as educator, I expected that I would enter the chosen schools, explain my study to the targeted population, and all possible participants would respond immediately. I believed that the participants would consider it important to add to the research so that the field of education would in some way improve. I checked the responses daily, and it was not until a week after the survey went live that a participant completed the survey. I thought that having the survey online would encourage participants to respond immediately. When I did not reach the number of respondents I anticipated I began to wonder if perhaps I should have given them the opportunity to use paper and pencil. Maybe that would have increased the number of responses I received.

Again, my naiveté of the research process came into play when I began the interview process. I planned my questions, allowed time to make a connection to the participant. In retrospect, perhaps I was hesitant in my follow up questions for fear that I may lead the participant in the direction I wanted to go rather than allowing them to lead me. The excitement and genuineness of the participants may have also caused me to forget for a moment that I was a researcher.

My original reflections on how principals' behaviors impacted teacher efficacy did not change a great deal during the study. What did change for me was my outlook regarding what research is, how one goes about collecting the data, interpreting the data and presenting the findings. Before I began the research process, I had a very simplistic view of research. Now, I have a much better understanding of the intricacies and importance that every word and number plays in the process.

Conclusion

This study investigated the relationship among five types of principal behavior (Human Relations, Trust/Decision Making, Instructional Leadership, Control, and Conflict) and the development of three types of teacher self-efficacy (Instructional Strategies, Classroom Management, and Student Engagement). The quantitative analyses resulted in two statistically significant correlations that can be considered to show positive relationships between the self-efficacy and principal-behavior measures. The two significant relationships were instructional leadership with teacher engagement, and conflict with teacher engagement. These relationships were significant even with a small sample and thus it is important to state that here. To ensure that every child develops to their potential, the educational community must focus on leadership behaviors that may increase teacher efficacy. By supporting teachers, school leaders in turn support our future citizens to take on the challenges of a global knowledge society.

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Appendix A: Teachers' Sense of Efficacy Scale[1] (Long Form)

Teacher Beliefs	How much can you do?								
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Appendix B: A Survey of Supervisory Behaviors

Part I—Demographics

Directions: Respond to each item by filling in the blank on the computer scan sheet that most accurately describes you (Please choose only one response per item).

1. What is your highest degree?

A. Bachelor's Degree
B. Master's Degree
C. Specialist's Degree
D. Doctorate Degree
E. Other

2. How long have you been at this school?

A. Less than one year
B. One year but less than two years
C. 2–5 years
D. 6-10 years
E. 11+ years

3. How many years have you been teaching?

A. This is my first year
B. 2–5 years
C. 6–10 years
D. 11-20 years
E. 21+ years

4. 1. What is your ethnicity?

A. Black
B. White
C. Hispanic
D. American Indian
E. Other

Part II—Survey items

Directions: Use the scale below to respond to each item by filling in the blank on the computer scan sheet for the response which comes closest to describing how often you see your principal exhibit this behavior.

A	B	C	D	E
Never	Seldom	Sometimes	Often	Always

5. My principal displays a lack of trust.
6. My principal demonstrates a caring attitude.
7. My principal provides positive reinforcement.
8. My principal interacts with faculty and staff.
9. My principal remains distant.
10. My principal calls me by name.
11. My principal delegates responsibilities.
12. My principal compliments me.
13. My principal uses coercion to motivate me.
14. My principal does not listen.
15. My principal uses eye contact.
16. My principal provides feedback regarding my teaching.
17. My principal corrects me in front of others instead of privately.
18. My principal practices good communication skills.
19. My principal is able to keep a confidence.
20. My principal gossips about other teachers or administrators.

21. My principal shows favoritism to some teachers.

22. My principal has double standards.

23. My principal has not supported me when parents are involved.

24. My principal demonstrates a lack of vision.

25. My principal is knowledgeable about the curriculum.

A	B	C	D	E
Never	Seldom	Sometimes	Often	Always

26. My principal is knowledgeable about instructional strategies.

27. My principal is partial to influential parents.

28. My principal supports me as a person even if I am wrong.

29. My principal is afraid to question his/her superiors.

30. My principal shrugs off or devalues a problem or concern.

31. My principal "passes the buck" rather than dealing with a situation.

32. My principal remembers what it is like to be a teacher.

33. My principal frequently interrupts my teaching.

34. My principal assigns too much paperwork.

35. My principal tells teachers to make due with what they have.

36. My principal assigns duty during planning periods.

37. My principal "nit-picks" on evaluations.

38. My principal expects paperwork to be done "yesterday" with no notice.

39. My principal overemphasizes control.

40. My principal involves me in decisions.

41. My principal uses the words “I” and “my” too frequently.

42. My principal is rigid and inflexible.

43. My principal applies procedures consistently.

44. My principal holds people accountable.

45. My principal fails to follow up.

46. My principal has rules, but does not always enforce them.

47. My principal makes “snap judgments.”

48. My principal listens to both sides of the story before making a decision.

49. My principal implements the latest fads without thorough knowledge.

50. My principal bases evaluations on a short observation.

51. My principal evaluates situations carefully before taking action.

52. My principal makes decisions as “knee jerk” reactions to an incident.

53. Are you currently teaching in your subject area?

    A. Yes B. No

Appendix C: Permission to Use Teacher Sense of Efficacy Scale

COLLEGE OF EDUCATION AND HUMAN ECOLOGY

ANITA WOOLFOLK HOY, PH.D.

PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy of both the long and short forms of the instrument as well as scoring instructions can be found at:

http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm

Best wishes in your work,

Anita Woolfolk Hoy

Anita Woolfolk Hoy, Ph.D.
Professor

COLLEGE OF EDUCATION
29 WEST WOODRUFF AVENUE
COLUMBUS, OHIO 43210-1177

WWW.COE.OHIO-STATE.EDU/AHOY

PHONE 614-292-3774
FAX 614-292-7900
HOY.17@OSU.EDU

Appendix D: Permission to Use Survey of Supervisory Behaviors

7256 Confederate Lane
Villa Rica, Georgia 30180

PDAC

Office: 770-214-8318
Cell: 770-605-8724
cbulach@comcast.net
Website: www.westga.edu/~cbulach

Professional Development and Assessment Center

To whom it may concern,

Date: Jan. 2, 2012

Re: Letter of Permission

This is to certify that the Survey for Supervisory Behavior (SSB) is copyrighted and I hold the copyright. I hereby grant Patricia Gallante permission to:

- Use the SSB in her study, entitled:

  The Effects of Principal Leadership Behaviors on Teacher Efficacy

- I have also agreed to score the SSB data for Patricia.

Please contact me with any questions.

Sincerely,

Dr. Clete Bulach

Appendix E: Interview Questions

1. How do the principal's caring attitude, communication skills, and staff interactions affect how you deal with student engagement?
2. How do the principal's caring attitude, communication skills, and staff interactions affect how you deal with instructional strategies?
3. How do the principal's caring attitude, communication skills, and staff interactions affect how you control disruptive behavior and establish clear expectations and routines?
4. How do the principal's lack of trust, snap judgments, and listening affect how you deal with your willingness to engage students and motivate them to show interest in learning?
5. How does the principal's lack of trust, snap judgments, and listening affect how you respond to difficult questions, gauge student comprehension, and construct good questions?
6. How does the principal's lack of trust, snap judgments, and listening affect how you control disruptive behavior and establish clear expectations and routines?
7. How does the principal's knowledge of curriculum, knowledge of instructional strategies, and feedback on teaching affect how you deal with willingness to engage students and motivate them to show interest in learning?
8. How does the principal's knowledge of curriculum, knowledge of instructional strategies, and feedback on teaching affect how you respond

to difficult questions, gauge student comprehension and construct good questions?

9. How does the principal's knowledge of curriculum, knowledge of instructional strategies, and feedback on teaching affect how you control disruptive behavior and establish clear expectations and routines?
10. How does the principal's delegation of responsibilities, rigidity/flexibility, and use of "I" and "my" statements affect how you deal with willingness to engage students and motivate them to show interest in learning?
11. How does the principal's delegation of responsibilities, rigidity/flexibility, and use of "I" and "my" statements affect how you respond to difficult questions, gauge student comprehension, and construct good questions?
12. How does the principal's delegation of responsibilities, rigidity/flexibility, and use of "I" and "my" statements affect how you control disruptive behavior and establish clear expectations and routines)?
13. How does the principal's behaviors regarding keeping confidences, passing the buck, and favoritism affect how you deal with willingness to engage students and motivate them to show interest in learning?
14. How do the principal's behaviors regarding keeping confidences, passing the buck, and favoritism affect how you deal with responding to difficult questions, gauge student comprehension, and construct good questions?
15. How do the principal's behaviors regarding keeping confidences, passing the buck, and favoritism affect how you (control disruptive behavior and establish clear expectations and routines?

Appendix F: Informed Consent

You are invited to take part in a research study of how principals leadership behaviors effect teacher's beliefs about their teaching abilities. The researcher is inviting you to participate in the study because you are an elementary/middle school teacher with five years or less of teaching experience to be. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Patricia Gallante, who is a doctoral student at Walden University.

Background Information:
If principal behaviors impact teachers' perceptions of themselves as effective teachers.
Procedures:
If you agree to be in this study, you will be asked to:
Fill out an online survey that will take 10-15 minutes
Some participants may be asked to
Participate in a follow up interview that may take an hour
Here are some sample questions:

How much can you do to control disruptive behavior in the classroom?	(1) (2) (3) (4) (5) (6) (7) (8) (9)
How much can you do to motivate students who show low interest in school work?	(1) (2) (3) (4) (5) (6) (7) (8) (9)

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one in the School District will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, stress or becoming upset. Being in this study would not pose risk to your safety or wellbeing. The potential benefits are that you will have added to the body of knowledge in the area of education and that you may gain insight in to ways of increasing your own teaching efficacy.

Payment:
A $5 gift card to Starbucks will be provided once you once you complete the online survey. You will receive another $5 gift card to Starbucks if you are asked to and agree to participate in the follow up interview.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the

researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by passwords, only the researcher will have access to these. she will be the only one to have access to the data. The text files will be transferred to a flash drive and stored in the researcher's home in a locked file drawer for 5 years. After 5 years the flash drive will be reformatted, erasing all the data it contains. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email (xxxxx@xxx.xxx). If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-xxx-xxxx, extension xxxx. Walden University's approval number for this study is # 07-12-13-0033408 and it expires on **IRB will enter expiration date.**

The researcher will give you a copy of this form to keep. Please print or save this consent form for your records. (for online research)
Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By clicking the link below, I understand that I am agreeing to the terms described above.

Printed Name of Participant _____
Date of consent _____
Participant's Signature _____
Researcher's Signature _____