THE EFFECT OF INSTRUCTIONAL COACHING ON TEACHER EFFICACY AND ON STUDENT ACHIEVEMENT

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AUTHORIZATION TO SUBMIT

DISSERTATION

This dissertation of Shannon Panfilio-Padden, submitted for the degree of Doctor of Education with a major in Educational Leadership and titled *The Effect of Instructional Coaching on Teacher Efficacy and on Student Achievement* has been reviewed in final form. Permission, as indicated by the signatures and dates given below, is now granted to submit final copies.

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ABSTRACT

Self-efficacy affects the way a person decides to live his or her life. Efficacy can dictate whether a person takes a risk, can influence personal and professional goals, and can determine what a person does when failure arises. Strong self-efficacy includes perseverance, motivation, and courage to try an unfamiliar path. In education, efficacy is imbedded in a school environment. The areas of efficacy that co-exist in an educational setting are teacher efficacy, collective efficacy, and student efficacy. The focus of this study is the influence instructional coaching has on teacher efficacy and how that efficacy affects student achievement. Research indicates that there is a relationship between teacher efficacy and student achievement. The question is whether teacher efficacy is influenced by support from an instructional coach in a school setting. In this mixed methods study there were many indications to support the need for instructional coaching in an efficacious school system. Themes found in the interviews and teacher reflections indicated a strong need for effective school leadership, strong professional learning communities, supportive grade level teams, and instructional support found within an instructional coach. Use of the Teacher Sense of Efficacy Scale along with the Wilcoxon signed-rank test showed the positive effects instructional coaching had on the instructional efficacy of the participants involved in this study. Finally, a paired samples *t*-test showed evidence of student achievement being affected by the support teachers received from the instructional coach. These topics remain relevant to the challenges facing teachers today who need ongoing instructional support to help them with implementation of state and federal mandates and educational standards.

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Introduction

Teacher efficacy is defined as the belief teachers have in their ability to execute specific actions required for successful implementation of instruction to the students they teach (Bandura, 1997; Karimi, 2011; Woolfolk Hoy & Davis, 2006). The effect teacher efficacy has to the instructional practice found in education has been given attention in the past few decades. Supportive school leadership and instructional coaching have also taken precedence in recent years as topics worth considering. However, there remain many questions surrounding the topic of successful and sustainable teacher support. Though there are various factors involved in such support a select few have been addressed in this study. This study focuses on the topics of teacher efficacy, collective efficacy, instructional coaching support, and the implications these areas have on student achievement.

Statement of the Problem

Typically, teacher professional development consists of educators attending sessions, often away from school, to progress their knowledge in educational practice. Teachers leave these sessions energized and willing to include the new learning into their classroom (Knight, 2007). Although refreshed and renewed, these teachers quickly find it difficult to implement the knowledge learned into their daily classroom practice (Knight, 2007). Teachers feel frustration often followed by resistance to change instructional practice because of the lack of support they have through the implementation process (Knight, 2007; Hall & Simeral, 2008).

Arguably, traditional professional development offers teachers the ingredients to become outstanding educators, and yet classroom instruction remains stagnant (Knight, 2007). The

opportunity to study and create a better system of continuous edification to educational professionals presents itself, and yet little research has explored why traditional professional development is ineffective (Knight, 2007). Educational history shows that queries begin to surface as to why teachers are unable to become advanced practitioners of their craft, and students are not effective learners (Hargreaves & Shirley, 2009). With massive current changes to our nation's educational system, such as the implementation of the Common Core State Standards, it is time to provide teachers the instructional support they deserve and the instructional support that will be transformative for both educational practice and student learning (Calkins, Ehrenworth, & Lehman, 2012; Pimentel & Coleman, 2012a; Rothman, 2011).

It is imperative for school administrators to understand the effort and time it takes to invest in teaching professionals and provide them with adequate instructional support (Elliot, Isaacs, & Chugani 2010; Fullan, 2008; Hargreaves & Shirley, 2009; Karimi, 2011; Swackhamer, Koellner, Basile, & Kimbrough, 2009). When educational problems arise, teachers are placed in the spotlight of criticism, even by the communities in which they serve (Ravitch, 2010). Teacher efficacy, collective efficacy, student efficacy, and instructional coaching encompass the solutions to the problems many educators have regarding student outcomes (Bandura, 1997; Goddard, Hoy, & Woolfolk Hoy, 2000; Tschannen-Moran & Woolfolk Hoy, 2004). However, school districts and educational administrations, which serve communities of students across the country, spend little time developing these important areas that are transformative for a school culture (Warren, 2010).

Background

Self-efficacy potentially influences many areas of a person's well-being (Bandura, 1997). Efficacy can determine how people feel, think, and act towards a given situation (Bandura, 1997;

Tschannen-Moran & Barr, 2004). An individual's personal belief system can determine the level of risk the individual is willing to take (Brown, 2012). Willingness to take a risk is determined by the motivation a person feels to try a new or different task (Bandura, 1997). Self-efficacy and motivation form a consensus of determined outcomes, both positive and negative (Bandura, 1997). Positive consensus moves a person towards personal growth while negative consensus keeps a person from seeking new avenues of potential growth.

Teachers' personal belief systems can predict the capability of instructional performance and foster growth in the students they teach (Bandura, 1997; Goddard et al., 2000; Shaw, 2009). Teachers often evaluate themselves and their performance and attach personal judgment, based on perceptions, to their overall self-efficacy (Woolfolk Hoy & Davis, 2006). Teachers with a high sense of efficacy, through hard work and persistence, create opportunities to engage students in learning, even in the most critical situations or with difficult students (Bandura, 2006; Corkett, Hatt, & Benevides, 2011). Included in this idea of teacher efficacy is the importance of having educators engaged in learning processes that help them understand their overall instructional performance and develop personal beliefs based on these enactments (Urrea, 2010). Both teachers and students benefit when teachers reflect on their state of efficacy, examine their thoughts and their actions, and make the necessary changes to improve not only their professional practice but also their learning processes (Bandura, 2006; Daudelin, 1996; Knight, 2011).

Teacher efficacy is not, however, an entity within itself (Bandura, 1997; Tschannen-Moran & Barr, 2004). When studying the potential impact of teacher efficacy on achievement in a classroom setting, researchers must consider other areas of efficacy such as collective efficacy and student or adolescent efficacy (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran &

Barr, 2004; Skaalvik & Skaalivik, 2010). These three areas of efficacy influence each other in a reciprocal fashion, and it is difficult to separate them from one another (Bandura, 1997; Tschannen-Moran & Barr, 2004).

Once teachers gain confidence in the area of personal teaching capacity and learn to work together with other colleagues to develop collective efficacy in a school setting, student efficacy has the capability to become strengthened (Bandura, 1997; Parjares, 2006; Tschannen-Moran & Barr, 2004; Woolfolk Hoy & Davis, 2006). To affect student achievement, administrators and school districts must consider how the efficacy of their teachers along with the collective efficacy of a school directly influences student performance (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran & Barr, 2004). Studies show when teachers possess high levels of self-efficacy in a particular content area and work together to strengthen collective efficacy, students will learn at a higher rate within the content area (Bandura, 1997; Garvis & Pendergast, 2011). Creating an efficacious system begins with school leadership focused on providing avenues for teachers to work collaboratively to improve classroom instruction (Bandura, 1997). If schools are to remain focused on student achievement, teacher efficacy and collective efficacy must be nurtured (Tschannen-Moran & Barr, 2004; Woolfolk Hoy & Davis, 2006).

Providing professional development opportunities for teachers to communicate, collaborate, and reflect on teaching practices requires time and dedication from educational administrators (Darling-Hammond & McLaughlin, 2003; Goodwin, 2011; Shaw, 2009). The practice of providing time for teachers to work as a group helps to foster an efficacious system (Goddard et al., 2000; Tschannen-Moran & Barr, 2003). Giving teachers opportunities to collaborate and reflect on teaching practices builds stability within teachers and helps them improve their instructional performance (Daudelin & Hall, 1997; Shaw, 2009). Stability refines

the vision and focus of the school to provide quality instruction to all students served within it. Through the collaboration process, collective efficacy grows as teachers become a part of a culture with a belief system that all students can and will learn (Goddard et al., 2000; Tschannen-Moran & Barr, 2003). Such strengthening of a group of likeminded educators is an ongoing process worth the time and effort because of the direct link to student achievement (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran & Barr, 2004).

Knowledge in the area of teacher efficacy—a teacher's belief in the ability to execute the specific action required to teach a task—needs more attention and development within an educational setting (Woolfolk Hoy & Davis, 2006). Implementation of instructional coaching is one way to focus more attention on teacher efficacy. Instructional coaching holds the valuable components for teachers to feel like they can become successful with implementation of new learning (Killion, 2009; Knight, 2007, 2009). These components begin with the development of a trusting relationship between a teacher and an instructional coach (Knight, 2007). The instructional coach values the assets the teacher has and through partnership, they develop solutions to better instruct students within a classroom setting (Knight, 2009; West, 2009; Urrea, 2010).

This study focuses primarily on teacher efficacy, collective efficacy, instructional coaching support, and how teacher efficacy affects student achievement (Bandura, 1997; Knight, 2007, 2009; Tschannen-Moran & Barr, 2004; Woolfolk Hoy & Davis, 2006). Although both professional development and teacher efficacy have been explored, little thought or investigation has taken place to study and combine the two ideas together (Karimi, 2011; Tschannen-Moran & Barr, 2004; Vale et al., 2010). Included in this study are references to research in other areas, such as effective teaching practices and collaboration, in order to offer more insight to other

areas of efficacy and their coexistence in the school organization as a whole (Bandura, 1997; Dean, Ross Hubbell, Pitler, & Stone 2012; Marzano, 2003; Tschannen-Moran & Barr, 2004). Incorporated in this study is the use of reflective practice, which can consist of teachers collaborating with an instructional coach who can guide conversation and can help a teacher find direction (Daudelin & Hall, 1997; Hall & Simeral, 2008; Knight, 2009; Shaw, 2009). Finding direction with the assistance from an instructional coach creates an opportunity for teachers to become great practitioners of instructional delivery (Knight, 2011). Research reveals reflection can alter what a teacher does inside the classroom and enhance the teacher's ability to collaborate more effectively with colleagues, and as a result, students begin to achieve at greater levels (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran & Barr, 2004; Shaw, 2009).

Research Questions

Creswell (2008) describes how "research questions narrow the purpose into specific questions the researcher would like answered or addressed in the study" (p. 70). In this study, research questions explore the topics of instructional coaching support, teacher efficacy, and student achievement. The central research questions in this study are:

1. What kind of support can be provided to teachers so their self-efficacy is strengthened within an educational setting?
2. Are teacher efficacy beliefs affected when teachers receive ongoing professional development support form an instructional coach while implementing new learning?
3. Can teachers increase their levels of self-efficacy within their instructional practices?
4. Are high levels of teacher efficacy directly linked to student achievement?

Teacher efficacy, collective efficacy, and instructional coaching potentially have a great impact on student achievement (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran & Barr,

2004; Shaw, 2009). Collectively, teachers work together to offer support to each other by becoming transparent in what they do in their classrooms and having discussions on how to improve their practice (Goddard, et al, 2000; Tschannen-Moran & Barr, 2003). Teacher support, through the opportunity to develop a professional relationship with an instructional coach, creates a school culture of stability (Knight, 2007, 2009). Instructional coaching supports educators by creating trusting relationships where both instructional successes and failures can be discussed. Student achievement is heightened by a culture of educational stability within a school where the teachers are valued, teachers are collaborative, and teachers feel supported (Knight, 2009; Warren, 2010; Tschannen-Moran & Barr, 2004).

Description of Terms

In the section listed below are terms relevant to the topics addressed in this study and pertinent to the overall understanding of the research questions. Terms listed have been defined through careful examination of the literature and are offered as guidance to the main ideas investigated and analyzed throughout this document.

Change agent. Instructional coach who affects a school by being a resource to teachers and by providing instructional support (Shaw, 2009).

Collective efficacy or collective agency. Refers to the "social perception" that capabilities are strengthened by a collective grouping of individuals' knowledge, skill, and resourcefulness (Bandura, 2006, p.5). Collective efficacy consists of the idea that people working together can secure what they are not able to accomplish alone (Goddard et al., 2000).

Collaboration. Refers to educators in a school working interdependently to accomplish common goals (DuFour, DuFour, Eaker, & Karhanek, 2004). Collaboration is practiced in school cultures that are associated with increased student achievement, a common vision and belief

system, and teachers who support and stimulate each other through difficult educational change (Fullan, Hill, & Crevola, 2006; Hargreaves & Shirley, 2009).

Common Core State Standards (CCSS). A set of common educational standards that emphasize the areas of English language arts and mathematics. The purpose of these standards is to provide clear guidelines for educators to help prepare students to be college and career ready (Rothman, 2012).

Instructional coaching. Encompasses a partnership between a teacher and a colleague who demonstrates deep knowledge in instructional practice (Knight, 2009; West, 2006).

Moral purpose. Moral purpose, as it pertains to education, is the belief in a purpose associated with the conviction that all students can learn and be academically successful (Fullan et al., 2006).

Personal efficacy. A person's "core belief", a tenacious desire that he or she can effect change by his or her own actions (Bandura, 2006).

Professional development. Refers to professional growth that occurs when teachers are provided with learning opportunities that increase their capabilities within personal instructional practice. These opportunities include one-on-one coaching support, collaboration with colleagues, and transformational learning opportunities (Darling-Hammond & McLaughlin, 2003; Knight, 2007).

Professional Learning Communities (PLC). Refers to a school with a culture that places learning as the main priority of an educational system. Teachers within a PLC work together to improve student learning. Reflection on instructional practice and making changes to improve it when necessary are key ingredients in a PLC (DuFour et al., 2004; Hall & Simeral, 2008).

Reflective practices. Teachers engage in reflective practices when they take the time to look back at lessons taught, are able to be present while teaching, and look forward by planning lessons for future learning. Teachers who are reflective collaborate with each other to gain feedback and understanding about instructional practice (Darling-Hammond & McLaughlin, 2003; Knight, 2011).

Self-efficacy. Beliefs a person has about what he or she can do, rather than beliefs about personality or physical attributes. A belief a person has to affect change (Bandura, 1997; Zimmerman & Cleary, 2006).

Adolescent or student efficacy. The relationship between academic motivation, academic achievement, and academic and personal development for adolescents. (Zimmerman & Cleary, 2006).

Teacher efficacy. A teacher's sense of judgment about his or her personal capabilities to effect and influence learning in all students, even in the most difficult and challenging of students (Bandura, 1997; Woolfolk Hoy & Davis, 2006).

Transparency. Refers to a teachers' openness about results, instructional practice, and student achievement (Fullan, 2008).

Significance of the Study

The purpose of this study is to broaden the understanding of the relationship among teacher efficacy, collective efficacy, instructional coaching, and student achievement. When so much is at stake in education, teacher and collective efficacy and the effect they have on student achievement must be considered (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran & Barr, 2004; Shaw, 2009).

Specifically, this study explores the influence instructional coaching has on the efficacy of classroom teachers who are provided weekly instructional support from a site-based instructional coach in the area of English language arts. It also explores instructional coaching and the potential impact this support has on student achievement. Participants in this study were provided support from an instructional coach to implement Mondo curriculum (curriculum new to the school at the beginning of the study), create ELA units, understand the CCSS, and implement word study school wide. Support was provided during a 10-week session, and teacher efficacy was evaluated before and after the intervention. Student data was also collected before and after instructional support was provided to teachers to see if student achievement benefited in any way from the intervention. Currently, there is a research gap between the topics of teacher efficacy and instructional coaching. This research study aims to close that gap and provide insight into the effect instructional coaching has on teacher efficacy and also on student achievement.

This study provides information to researchers, educators, and administrators regarding the individual fields of teacher efficacy, collective efficacy, student efficacy, and instructional coaching. This study also provides insight to many educational professionals seeking to understand the reciprocal relationship between teacher efficacy, collective efficacy, and instructional coaching support and the effects these areas have on student achievement. It also offers insight to school superintendents, state legislators, and state departments of education of the importance of how these individual fields are interrelated by focusing on teacher efficacy and the role it plays in increasing student achievement.

Overview of Research Methods

The study is a convergent mixed-methods design, and participants were six elementary-grade-level teachers who received support from a site-based instructional coach. The convergent mixed-methods approach allowed the researcher to collect quantitative and qualitative data on the same topic to better understand the research problem (Creswell & Plano Clark, 2011). The researcher analyzed the data collected by comparing and contrasting the data collected to better understand the research problem (Creswell & Plano Clark, 2011).

The researcher sought an elementary school with an administrator dedicated to supporting teachers using an instructional coaching model. This study received HRRC approval in June, 2013 (see Appendix K). Participants were selected from grade levels four and five based on the recommendation from the school administrator. These participants were selected by the school principal based on the following criteria: each had been at the school site for more than one year, had experience working together as colleagues, and had an established relationship with the instructional coach. It was important for the participants to have an established relationship with the instructional coach because part of the research focused on the support the participants felt they had with the instructional coach not the components of establishing a relationship with the instructional coach. The participants varied in ages from 25 to 41 and had two to twelve years of teaching experience.

Each participant took part in a one-on-one interview in September of 2013. Interview questions included inquiries regarding school culture, instructional coaching, and current levels of understanding of personal pedagogy and instructional practice. Interview questions were designed by Dr. Jim Knight, author and researcher in the field of instructional coaching (See Appendix D) (Knight, 2007).

Participants were asked to complete the Teachers' Sense of Efficacy Scale, created by Dr. Anita Woolfolk Hoy and Dr. Megan Tschannen-Moran, before and after the research study (see Appendix F) (Tschannen-Moran & Woolfolk Hoy, 2001). The Woolfolk Hoy and Tschannen-Moran scale determined whether change occurred in teacher efficacy subsequent to a 10-week intervention consisting of weekly guidance and direction from an instructional coach. Currently, there is a research gap between the topics of teacher efficacy and instructional coaching. This research study aims to close that gap and provide insight into the effect instructional coaching has on teacher efficacy and also on student achievement.

Student achievement data collected consisted of results from the 3/5 Reading Record and the Retell/Recall/Comprehension Scoring Sheet from the Mondo reading assessment (see Appendix J) (Crevola & Vineis, 2008). Assessments were given by the participants to students at the beginning and at the end of the study as part of their normal school routine. The purpose of including student data in this study was to understand if the weekly instructional coaching support a classroom teacher receives in the area of English language arts could be considered beneficial enough to change the instructional practice of a teacher.

The final portion of the study included a reflection sheet, designed by Knight (see Appendix C) (Knight, 2007). Participants completed the *Reflection Sheet* at the end of the study to document personal thoughts about receiving weekly instructional coaching support.

The procedures used in this study were designed to explore many areas in educational practice including teacher efficacy, collective efficacy, the impact that weekly intentional instructional coaching support has in the area of English language arts, and the connection between instructional coaching support and teacher efficacy where there currently remains a need for more research. Student achievement was analyzed to see if there is a correlation

between teacher efficacy, weekly instructional support, and student outcomes in the form of English language arts data.

Chapter II

The Literature Review

Understanding of Efficacy

Intertwined within the teacher efficacy, collective efficacy, and adolescent efficacy this study explores is the concept of self-efficacy. Self-efficacy theory is rooted in Albert Bandura's work in the study of the human condition (Bandura, 1997; Bandura, 2006). Bandura (1997) refers to the center of the human condition as *The Nature of Human Agency*. Within the definition of human agency is the awareness that a person can exercise influence over what can personally be accomplished (Bandura, 1997). Embedded in human agency is the belief about one's own ability. Such a belief can cause a person to take a risk or continue to make safe choices (Bandura, 1997).

Self-efficacy includes the diverse stages to which individual belief system determines how a person performs on a given task (Bandura, 1997; Bandura, 2006; Jain, Bruce, Stellern, & Srivastava, 2007). The mechanisms behind self-efficacy are the motivation one has to do a task, a sense of well-being, and the belief that one can accomplish any new task (Bandura, 1997). These ideals are at the basis of a person's belief system and have the capacity to create change (Bandura, 2006).

Self-efficacy marks the emotional and psychological well-being of a person and can govern the choices and changes a person makes during critical points in life (Bandura, 2006; Brown, 2012; Goddard et al., 2000; Tschannen-Moran & Barr, 2003). Self- efficacy can provide tenacity and effort required to gain skill and obtain success (Bandura, 1997; Dweck, 2006; & Pajares, 2006). The efficacious spirit a person holds can direct an individual to do astonishing things while facing overwhelming adversity (Bandura, 1997). However, self-efficacy cannot

provide the skills necessary to become successful (Pajares, 2006). Low self-efficacy can contribute towards negative thoughts about self-performance, whereas high self-efficacy can instill confidence so people feel that they can accomplish anything they set their mind to (Bandura, 2006; Dweck, 2006).

Self-efficacy, described even in the simplest form, remains a very intricate and complex idea (Bandura, 1997, 2006). Another way to examine self-efficacy is to consider a person's mindset. Dweck (2006) describes two different ways people think: with a fixed mindset or a growth mindset. With a fixed mindset, limitations are placed on thoughts towards ability and what can be accomplished. With a growth mindset, a person continuously wants to learn and is not afraid of failure (Dweck, 2006). Beginning in early adolescence, people constantly find themselves at crossroads which demand a decision be made (Bandura, 2006). The decisions ultimately determine career options, challenging tasks a person will attempt, or whether a risk should be taken (Bandura, 2006; Dweck, 2006). These decisions can determine which areas of an individual's life will be cultivated and which will remain dormant (Bandura, 2006). A person with a fixed mindset is described as an individual who tends to give up and not finish a task, and believes intelligence and talents are finite and cannot be increased with effort and time. A person with a growth mindset sees failure as a learning experience, understands that the process of learning takes time, and is not afraid to try again (Dweck, 2006; Fullan et al., 2006).

Three types of efficacy

Three main areas of efficacy have influence on school culture: teacher efficacy, collective efficacy, and adolescent efficacy (Bandura, 1997; Goddard et al., 2000; Woolfolk Hoy & Davis, 2006; Tschannen-Moran & Barr, 2004). Under effective school leadership, these three areas of efficacy contribute to the effectiveness of a school setting and whether a school community can

motivate students towards academic success (Bandura, 1997; Woolfolk Hoy & Davis, 2006). Combining teacher and collective efficacy can fuel the passion, desire, and knowledge a group of teachers has to educate its students (Goddard et al., 2000; Fullan et al., 2006). It is important for a school to encompass a collective belief system and a dedication to learning for both staff and students (Bandura, 1997; Tschannen-Moran & Barr, 2004). The idea of efficacy affecting school culture in a positive way has the power to change the individuals the school system serves (Bandura, 1997; Fullan et al., 2006; Woolfolk Hoy & Davis, 2006).

Teacher-efficacy. The belief in the ability to structure, organize, implement, and execute lessons successfully is the substance of teacher efficacy (Woolfolk Hoy & Davis, 2006). Teacher efficacy results in personal judgment about the capability of influencing the learning of students and contributes to the learning of students (Bandura, 1997; Woolfolk Hoy & Davis, 2006). Bringing together self-perception and an individual's faith in his or her ability to deliver superbly structured lessons equals success in instructional practice (Marzano, 2003). With successful execution of instruction comes the opportunity to institute strong student achievement (Sari et al., 2009). A teacher's confidence in the ability to carry out a well-structured lesson requires time, reflection after lesson delivery, and practice developing teaching skills, making the art of teaching a deeply personal experience which validates the teacher's sense of self-efficacy (Dean, Hubbell, Pitler, & Stone, 2012; Elliott, Isaacs, & Chugani, 2010; Hora, & Ferrare, 2012; West, 2009).

As it relates to the ability to teach, teacher efficacy can be determined by how prepared teachers feel they are to instruct students (Bandura, 1997, 2006; Skaalivk & Skaalvik, 2010; Woolfolk Hoy & Davis, 2006). Bandura (2006) speaks clearly and extensively about the

importance of teacher efficacy and how it defines the way in which material is presented to students. Bandura writes:

> Teachers' beliefs in their instructional efficacy partly determine how they structure academic activities in their classrooms. Teachers with high self-efficacy create mastery experiences for their students. Those beset by self-doubts construct classroom environments that are likely to undermine students' judgments of their abilities and their cognitive development. (p. 11)

Teachers with strong self-efficacy are eager to try new ideas, creating masterful teaching experiences for their students while remaining reflective during the implementation process (Bandura, 1997, 2006; Tschannen-Moran & Barr, 2003). If efficacy is low, a teacher tends to avoid the risk of trying new techniques or incorporating different teaching methods into the classroom (Dweck, 2006; Ozder, 2011).

Collective-efficacy. Collective-efficacy affects the school organization as a whole and motivates the system of learning by challenging and affecting both teachers and students (Tschannen-Moran et al., 2003). Stakeholders in a school who desire a culture that includes collective-efficacy unite for the common good of the students and communities they serve and seek a common vision they can rely on (see Figure 1) (Tschannen-Moran & Barr, 2003). This belief system includes the idea of a shared value in high-stakes learning for all students (DuFour et al., 2004; Marzano, 2011; Tschannen-Moran et al., 2003). Collective teacher efficacy brings philosophies of educators together to generate a shared focus that will benefit the organization as a whole (Tschannen-Moran & Barr, 2003). Connections between teachers consist of trust, persistence, motivation, and courage to do whatever it takes to get students to high levels of academic performance (Fullan, 2011; Fullan et al., 2006; DuFour et al., 2004; Tschannen-Moran

& Barr, 2003). Educators who find strength by working together in a school focusing on collective efficacy can influence student achievement and are associated with a positive school environment (Tschannen-Moran & Barr, 2003). This asset empowers teachers to break down any barriers that stand between students and their learning (Tschannen-Moran et al., 2003).

Figure 1

First Area of Research

Instructional Coaching +	**Teacher Efficacy =**	**Relationship**
Knight (2007) explains the partnership approach to instructional coaching.	Bandura (1997) describes a teachers belief system which includes the certainty teachers have that they can positively affect every student's learning and achievement by setting high expectations for all learners.	Collective efficacy (Tschannan Moran & Barr, 2001) can be achieved when teachers and school leaders come together cohesively and focus on student learning.

Adolescent efficacy. Adolescent efficacy is described as the ability an adolescent has to adapt to surrounding circumstances (Pajares, 2006). The classroom plays a role in shaping adolescent efficacy as young learners begin to convey individual thinking and feelings in the classroom setting. (Davis, 2010). Early on, these influences can create a heightened view of self-perception as a child matures and moves closer to adolescence (Bandura, 2006; Davis, 2010; Oettingen & Zosuls, 2009 Vittorio, Caprara, Scabini, & Regalia, 2006; Zimmerman & Cleary, 2006; Zimmerman, Bonner, &Kovach, 2009). Social and cultural norms are discovered and communicated within the instructional activities in a classroom, an adolescent's thinking process

(Davis, 2010). Self-perception includes an adolescent's belief that he or she has the ability to affect or change his or her environment (Zimmerman & Cleary, 2006).

Efficacy in students changes as middle-school-aged children begin to experience pressure from school and the level of responsibility changes (Zimmerman et al., 2009). Completing homework, developing good study habits, and engaging in self-management activities become priorities in order to meet school requirements (Marzano, Pickering, & Heflebower, 2011; Zimmerman et al., 2009). Failure to self-manage can begin to erode the academic identities of adolescent students (Zimmerman et al., 2009). This erosion can bring doubt within the mind of young students, keeping them from attempting classes in certain subject areas because of a belief that they will not be successful (Karaarslan & Sungur, 2011). A relationship begins to develop between the self-efficacy of the student and the desire to be successful. Efficacy begins to determine what subject areas students believe they can and cannot learn and which ones they will avoid altogether (Karraarslan & Sugur, 2011). Student behavior can also cause the environment to change in either a positive or negative way (Bandura, 1986; Bandura, 1997).

Teacher Efficacy in Instructional Practice

Teaching is a stressful occupation and can leave teachers feeling unsatisfied with their job performance and lower their perceptions of efficacy (Bandura, 1997; Vasher, 2011; Woolfolk Hoy & Davis, 2006). These results point directly to teachers' belief in themselves (Bandura, 1997, 2006; Garvis & Pendergast, 2011; Woolfolk Hoy & Davis, 2006). The idea of enhancing teacher efficacy correlates to improving preparedness for classroom management and solid instructional practices (Marzano et al., 2011; Sari, Celikoz, & Secer, 2009). Good instruction takes practice, and it is essential for a teacher to believe in the effectiveness of instruction delivered to students.

It is important for teachers to have a high sense of self-efficacy in all areas of teaching, including the ability to adapt to learning styles. Classroom instruction should accommodate individual learners so students feel permitted to make decisions for themselves about where learning accomplishments will take them (Zimmerman et al., 2009). A teacher's ability to accommodate different learners and their learning styles can increase student achievement (Ozder, 2011). Educators encounter students who have low motivation, behavior issues, come from poverty-stricken environments, or are English Language Learners (Bandura, 1997; DuFour et al., 2004). The opportunity for students to become successful hinges on teachers' understanding of the potential capabilities their students have while implementing effective teaching strategies to enhance learning (Calkins et al. 2012; Dean, Hubbell, Pitler, & Stone, 2012; Marzano, 2003). When teachers are satisfied with their instructional performance and students learn with enthusiasm, teacher efficacy increases (Ozder, 2011).

Teachers' Influence on Student Efficacy in a Classroom Setting

It is important for teachers to understand their role in influencing student efficacy (Bandura, 1997; Woolfolk Hoy & Davis, 2006). When addressing the idea of enhancing the self-efficacy in a classroom setting, a teacher must acknowledge the importance of setting high standards for all students (see Figure 2) (Marzano et al., 2011; Pajares, 2006; Woolfolk Hoy & Davis, 2006).

Figure 2

Second Area of Research

Teacher Efficacy +	**Student Achievement =**	**Relationship**
Woolfolk Hoy & Davis (2006) state that teachers who set instructional goals for themselves and invest effort and persistence to reach these goals will increase belief in themselves and spend more time investing in student learning.	This occurs by putting students at the center of the learning process so the instruction is meeting the personal academic needs of students (Fullan, et al., 2006). This gives more opportunities for students to become academically successful.	It is important for classrooms to have an atmosphere where knowledge is cultivated and nurtured (Ramdass & Zimmerman, 2008).

Teachers must believe they can teach every student to take ownership and responsibility for their learning (Fullan et al., 2006). Fullan et al. (2006) calls this the new mission for high-stakes education. The mission is to encourage students to meet high standards of education and equip them to become lifelong learners that are adaptable and proficient as the world around them changes (Bandura, 1997; Fullan et al., 2006).

Another factor that affects student efficacy is the challenge level of academic tasks (Marzano, Pickering, & Heflebower, 2011). Academic tasks should be stimulating enough for students to feel energized when completing them, but not so hard that students feel paralyzed (Marzano et al., 2011; Pajares, 2006). Completion of tasks stimulates students to begin thinking

towards future growth and their career interests (Brown & Lent, 2006). Teachers positively influence student achievement the most when they help students learn to self-regulate during the learning process (Kim & Park, 2006; Marzano et al., 2011). Providing students with this help and the time to develop perseverance and a tenacious spirit enables them to become successful in life.

Increasing student efficacy by using goal-setting, high engagement, and feedback. Current research guides an educator to consider implementing effective instructional strategies in the classroom and collect necessary data to understand the effectiveness of these strategies (Bean & DeFord, 2012; Hall & Simeral, 2008; Knight, 2009). Marzano et al. (2011) discuss the importance of student efficacy and the role it plays in the engagement of the student. They mention the importance of self-efficacy in students as being the single most important factor in student participation and involvement in the classroom (Marzano et al., 2011). An instructional strategy to increase student efficacy is the use of charts and scales to help students track their progress during an assignment. This helps the teacher guide the learning process so students are given a chance to reflect and learn to persevere when learning gets difficult (Marzano et al., 2011; Zimmerman et al., 2009). Teachers challenge students to plan how they will accomplish a task, rate their engagement during the task, track the work that they did to accomplish it, and rate the effort they put towards completing the assignment (Marzano et al., 2011; Zimmerman, et al., 2009). This provides a comprehensive approach to helping a student develop a sense of positive self-efficacy.

Such teacher feedback has proven to be a way to heighten student achievement (Woolfolk Hoy & Davis, 2006; Marzano, 2003). Giving feedback can influence students to set high achievement goals for themselves and understand what they need to do to accomplish and work towards those goals (Bandura, 1997, Dweck, 2006; Pollock, 2007). When a teacher gives a

student feedback and sets specific learning goals for him or her, the student has an opportunity to grow as a learner and thinker, and this growth can heighten self-efficacy (Pollock, 2007; Woolfolk Hoy & Davis, 2006).

The manner in which teachers react to students and their academic capabilities through providing student feedback is vitally important (Dean et al., 2012; Marzano et al., 2011). Critique, constructive criticism, and praise are important to students and can either enhance their self-efficacy or diminish it (Jain et al., 2007). A study was conducted on the topic of attritional feedback and self-efficacy by researchers in 2007 (Jain et al., 2007). During the research, eighth-grade students were given three different types of feedback during an assignment: effort feedback, ability feedback, and effort together with ability feedback (Jain et al., 2007). Effort feedback included teachers responding to students by praising the effort they put forth towards the assignment. Ability feedback included responding to students by praising students' ability to do a task. Effort and ability feedback gave responses to students using both methods. Researchers found that the work of students who were given genuine feedback on the effort they were putting towards an assignment improved more than the work of students who received the other two types of feedback (Jain et al., 2007). Recognizing effort can help strengthen a student's belief in what can be accomplished (Bandura, 2006; Dean et al., 2012; Marzano et al., 2011; Pollock, 2007).

Knowing how to accept feedback is also important for students (Pollock, 2007).This process "provides students with a strategy that enhances their ability to listen to feedback—both positive and negative—and to use that information to change or maintain behavior" (Eisenberger, Conti-D'Antoniao, & Bertrando, 2005, p. 117). Students begin to understand the importance of inviting the community of learners within the classroom to help support their

learning. After students receive feedback from peers, students can heighten their self-efficacy through self-regulation and self-reflection on their learning (Zimmerman et al., 1996).

Collective Efficacy and Student Achievement

An important factor to help increase collective efficacy is the idea of creating a collaborative school community, which increases student success (DuFour,et al., 2004; Tschannen-Moran & Barr, 2004). Teachers gain strength through collaboration and the shared vision of other colleagues. Collaboration must include participants who are authentically committed to the process of learning from each other and live with a shared purpose (Bandura, 1997; Fullan et al., 2006; Goddard et al., 2000; Hargreaves & Shirley, 2009). When authentic collaboration happens, teachers come together with open minds, ready to listen and not cast judgment for failures or mistakes (Fullan, 2008). Teachers openly respect each other and constructively analyze each other's teaching practices (Darling-Hammond & McLaughlin, 2003; Marzano, 2003). Partnership and community are at the heart of an educator's belief in what can and cannot be accomplished (DuFour et al., 2004).

Understanding collective teacher efficacy can help organizations recognize why some schools do better than others at maintaining high standards for student learning (Goddard et al., 2000). Research clearly identifies that teachers require supportive, collaborative settings to create strong connections between colleagues, which builds a strong efficacious system (Bandura, 2006; Goddard et al., 2000; Lipton & Wellman, 2007; Shaw, 2009). Collective efficacy creates a cohesiveness and belief system that all students will achieve, setting high expectations for learning for both the teachers and the students (Fullan et al., 2006; Goddard et al., 2000; Tschannen-Moran & Barr, 2003). Teachers displaying highly efficacious attitudes in a school community and exhibiting enthusiasm for teaching and learning create a community where

student achievement will benefit (Tschannen-Moran & Barr, 2003). Collectively creating clear goals for students to become successful leads to a determination of every teacher to advocate for every student who is part of a school community (Fullan et al., 2006).

Collective efficacy is positively linked to student achievement (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran et al., 2004; Woolfolk Hoy& Davis, 2006). The relationship between student efficacy and collective efficacy has a uniquely reciprocal effect (Tschannen-Moran & Barr, 2004). Collective teacher efficacy impacts student achievement, student achievement can help to increase teacher efficacy, and teacher efficacy can increase the collective efficacy of a school (Bandura, 1997; Tschannen-Moran & Barr, 2004).

History of Instructional Coaching

When a classroom teacher learns new techniques, the teacher will frequently need extra support to gain confidence with the integration of the new learning (Shaw, 2009; Reinke, Sprick, & Knight, 2009). By doing some informal research, Jim Knight (2007) found a very small percentage of teachers implemented new learning received from a professional development setting if they were not given ongoing instructional support to help with the implementation. Often, they were unsuccessful in full implementation of these new strategies because of the lack of ongoing instructional support during the implementation process (Knight, 2007). Teachers receiving instructional coaching after attending a traditional professional development session were much more likely to implement new learning into their instructional practice (Knight, 2007).

Coaches deliver support in many different capacities (Bean & DeFord, 2012; Ellison & Hayes, 2009; Killion, 2009; Toll, 2009). A coach must be a role model, have the capability to motivate and inspire, be able to guide and support teachers by providing feedback, and listen to

teachers' ideas and thoughts about their work (Boreen, Johnson, Niday, & Potts, (2009); Hall & Simeral, 2008; Shaw, 2009). These forms of support can increase fidelity to instructional practice (Bianco, 2010). Coaches have acquired many different roles such as resource provider, listener, curriculum specialist, instructional specialist, classroom supporter, learning facilitator, school leader, and catalyst for change that can benefit a school-wide system of learning (Killion, 2009; Shaw, 2009; Weller Swanson, 2012).

Roles of an Instructional Coach

Creating a school culture of strength and stability is at the heart of providing teacher support (Bean & DeFord, 2012; Hall & Simeral, 2008; Knight, 2012). Building sustainable capacity is the intention of establishing a relationship between an instructional coach and a teacher (Hall & Simeral, 2008; Shaw, 2009; Weller Swanson, 2012). In the beginning stages of this relationship, a coach commits to creating trust and intently listens to the concerns a teacher has with regard to instructional practice (Bean & DeFord, 2012; Hall & Simeral, 2008; Knight, 2009). The coach encourages growth by supporting the thinking and learning process of the teacher to help him or her successfully implement new learning techniques and practices (Darling-Hammond & McLaughlin, 2003; Daudelin, 1996; Toll, 2009).

It is the responsibility of an instructional coach to offer a variety of instructional techniques to teachers when discussing the educational needs of students (Kise, 2009; West, 2009). Coaches can effectively provide ongoing support for lesson planning and implementation of instruction as long as the classroom teacher accepts the coaching provided (Shaw, 2009). It is the duty of the instructional coach to ask pointed questions about instructional practice of a teacher when necessary so that teacher and coach together can improve classroom instruction (see Figure 3) (Killion, 2009; Knight, 2007; Lipton & Wellman, 2007). Lending an attentive ear

allows instructional coaches to focus on the concerns classroom teachers have with topics such as classroom management, student achievement, unit planning, and lesson delivery (Killion, 2009; Knight, 2009; Reinke et al., 2009). By becoming the resource teachers need, instructional coaches can guide teachers towards continued enrichment of instructional practice through open and honest conversation (Knight, 2007; Shaw, 2009).

Instructional coaches guide conversations between themselves and the teachers they serve (Knight, 2007). Having conversations with staff members centered on student achievement, offering encouragement, and contributing non-evaluative feedback on instructional practice to teachers are responsibilities of an instructional coach (Ellison & Hayes, 2009; Killion, 2009; Knight, 2007; West, 2009). Through these efforts, implementation of new teaching practices can become intentional for the teacher (Knight, 2011). Teachers begin to see the benefit of finding support for their ideas, and they value feedback from coaches and colleagues because such support and feedback helps to enhance their efficacy (Ellison & Hayes, 2009; Toll, 2009). In addition, teachers feel empowered when they have access to a colleague in the form of a coach they respect and have built a relationship with (Hulburt & Knotts, 2012; Knight, 2011).

Knight (2009) has categorized the work an instructional coach undertakes. Within these categories are the “tactics for translating research into practice” (Knight, 2009, p. 41). They include clarifying, synthesizing, breaking down teaching strategies for teacher use, seeing the instruction through the eyes of a student, and simplifying by making the complex pieces of instructional practice more clear (Knight, 2009).

Figure 3

Third Area of Research

Instructional Coaching +	**Student Achievement =**	**Relationship**
Hall & Simmeral (2008) and Davis (2009) describe coaching as a leadership position. They state that instructional coaching can increase effectiveness in instruction and help to implement the changes necessary to produce school-wide change.	Marzano (2003) states that teachers are the most important factor in student achievement. Investing in teachers and concentrating on effective delivery of instruction is critical to students' academic success.	Instructional coaching and the positive influence it has on teachers' instructional delivery will help to increase student learning.

Role of a School Administrator

As high-stakes learning for students remains at the forefront of educational purpose, the challenging role of school administration continues to grow (Calkins et al. 2012; Rothman, 2011). Oftentimes, school administration includes managerial tasks, scheduling, behavior management, community service, and instructional leadership (Fullan, 2003; Marzano, 2003). In theory, being an instructional leader should take precedence above all other leadership tasks (Marzano, 2003). However, the idea of becoming an instructional leader remains, in many cases, simply an idea (Fullan, 2003). Administrators find little time to support a teacher's instructional practice when this is often the primary reason they become school administrators.

School administrators can turn to an instructional coach to help support teachers and their instructional needs (Hall & Simeral, 2008; Knight, 2011). An instructional coach not only offers instructional support to teachers but also supports the principal and his or her vision for the school (Hall & Simeral, 2008). In addition, instructional coaching lends itself to the idea of creating an efficacious school environment where students feel safe, successful, and cared for, and know their achievement matters to the school as a whole (Shaw, 2009).

How Instructional Coaches Assist School Administration

Instructional coaches add to the school environment ideas and structure to help the school administrator (Hall & Simeral, 2008; Knight 2007). The relationship between an administrator and a coach must be defined so the coach and the administrator can implement powerful productive school change that will benefit all stakeholders (Hall & Simeral, 2008; Killion, 2009). These stakeholders include teachers, staff, and students (Bandura, 2006; Goddard et al., 2000; Tschannen-Moran & Barr, 2004). The interaction between a principal and an instructional coach includes conversations about the needs of the staff as a whole and how best to support them (Hall & Simeral, 2008; Knight, 2007). The principal needs to understand that conversations between the coach and the teacher remain confidential (Knight, 2007). However, if the instructional coach finds similar needs among multiple staff members, these needs can be expressed in a general sense to the school principal so more support is provided. Both the principal and instructional coach discuss and decide upon professional development strategies, and both become responsible in surrounding teachers and staff with a system of support (Hall & Simeral, 2008; Killion, 2009; Knight, 2007; & Knight, 2011).

The instructional coach shares other leadership roles with the school administrator as well, such as the role of change agent (Hall & Simeral, 2008; Shaw, 2009). Instructional coaches

are an asset to the school administrator by helping lead change that benefits all who are involved in the school setting (Hall & Simeral, 2008). The coach requires continued support from the school administrator in order to implement sustainable school change (Hall & Simeral, 2008; Killion, 2009). Part of the support is provided through ongoing dialogues between the principal and the coach. Together they set goals on how best to support the school staff (Knight, 2009). A partnership, which includes ongoing accountability, is formed between the coach and the principal (Knight, 2011). They stay responsible to each other by sharing how goals are met and how they are both supporting the instructional practice of staff members. They share and remain open to new ideas on how to best meet the needs of staff members as a whole (Hall & Simeral, 2008). A school administrator and an instructional coach rely on each other for support when deciding a direction to take in implementing changes needed to reach the overall goals of the school.

Differences Between an Instructional Coach and an Administrator

Delineating the differences between the administrator and the instructional coach can help staff members gain understanding about the two leadership positions (Hall & Simeral, 2008 & Knight 2007). It defines for the teachers the differences between a principal and an instructional coach regarding support with instructional practice (Killion, 2007; Knight, 2011). The difference between the two leadership positions can become confusing at times because of shared roles and overlapping responsibilities (Hall & Simeral, 2008). These positions are mutually considered school leadership positions, surround teachers with support, and encompass an element of becoming change agents (Shaw, 2009). The difference is this: An instructional coach is a peer of the teachers, but the administrator has evaluative and supervisory responsibilities (Hall & Simeral, 2008).

Instructional coaches provide constructive feedback to teachers about their instruction, while the administrator is responsible for summative evaluations, which provide an opportunity for the administrator to analyze the lessons the teachers teach. Instructional supervision falls in the realm of the principal, and professional development support is the responsibility of the coach (Tesfaw & Hofman, 2012). These responsibilities are connected and codependent (Tesfaw & Hofman, 2012). Overseeing the overall academic progress of students permits the principal to remain the evaluator of teacher's instruction, whereas instructional coaches arrange for transparent conversations to take place between themselves and the teachers they advocate for to improve instruction without being evaluative (Reinke, et al., 2009; Shaw, 2009; Tesfaw & Hofman, 2012).

An instructional coaching model begins with support from the school administrator (Darling-Hammond & McLaughlin, 2003; Killion, 2009; Knight, 2007). School principals, who act as instructional leaders, share their ideologies and school vision with the instructional coach (Hall & Simeral, 2008; Knight, 2007; Knight, 2009; Reinke et al., 2009). Instructional coaches working towards these ideologies and shared vision for the school focus their efforts on the instructional practice of teachers (Reeves, 2006; Reinke et al., 2009: Shaw, 2009). The description of an instructional colleague as a coach can create imagery of teamwork and evokes the excitement to learn (Cleave & Dailey, 2007).

Instructional Coaching and the Common Core Standards

In June of 2010, a group of educators and public officials came together to unveil a set of English language arts and mathematical standards intended to become common educational practice among the states in America (Rothman, 2011). These standards, referred to as the Common Core State Standards (CCSS), are now adopted by 45 states in the U.S. and are

included in one of the biggest reforms in K-12 education to date (Calkins et al. 2012; Rothman, 2011). The Common Core State Standards are intended to provide opportunities for educators to come together and allow students access to an education that prepares them to be both college and career ready (Calkins et al., 2012; Rothman, 2011).

One of the major concerns expressed by leaders in education about the implementation of the CCSS is that professional development is needed so educators can adequately carry out the standards (Calkins et al., 2012; Rothman, 2011; Webber et. al., 2014). Successfully employing the CCSS requires that teachers and administrators develop a deep understanding of the structure of the standards (Calkins et al. 2012; Webber et al., 2014). Educators need time to process the standards and opportunities to share ideas regarding assessment, implementation, and student work (Walker, 2013). For example, the standards require teachers to develop lessons incorporating fiction and informational texts (Calkins et al., 2012; Rothman, 2011). This structure requires teachers to use inquiry based teaching practices so students have the opportunity to think deeply about their learning Calkins et al., 2012; Davis, 2012). Teachers who must develop and evaluate the lessons must understand the required structures and student processes.

Instructional coaching can provide teachers with the support they need to implement the Common Core Standards. Studies of standards-based reforms have indicated professional development and explicit guidance to teachers about the implementation of the standards yield an improvement in student learning (Rothman, 2011). The CCSS are meant to suggest areas of instructional focus teachers should address to prepare their students to be college and career ready (Davis, 2012; McTighe & Wiggins, 2012; Webber et al., 2014). However, they do not provide teachers with explicit guidelines for instruction (McTighe & Wiggins, 2012; Rothman,

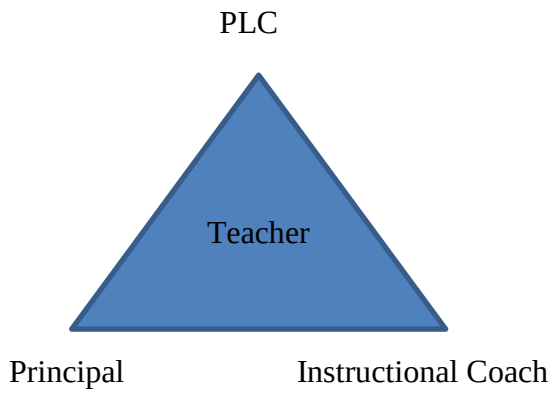
2011). To help teachers understand how best to integrate the standards in their classrooms, school districts and schools must support teachers with ongoing professional development and guidance with implementation (Calkins et al., 2012; Fowler, 2009; Rothman, 2011; Walker, 2013).

Efficacy and Instructional Coaching

For a school culture to promote strong teacher efficacy, supportive leadership must be in place. Hall & Simeral (2008) describe the elements required for the stability of a school focused on teacher efficacy (see Figure 4). The instructional coach, school principal, and a strong PLC becomes part of this supportive leadership by surrounding the teacher with intentional instructional support (Hall & Simeral, 2008; Killion, 2009; Knight, 2011; Shaw, 2009). An instructional coach can be instrumental in advocating for teachers and providing them opportunities to continue to improve their instructional expertise (Bandura, 2006; Goddard et al., 2000; Tschannen-Moran & Barr, 2004).

Figure 4

Teacher System of Support



Collaborative practices begin to enhance teacher efficacy and turn the focus to human agency (Ellison & Hayes, 2009; Vasher, 2001). Human agency can be described as a key

property—the nucleus—of a person's ability to contemplate and reflect on his or her thoughts and actions (Vasher, 2011). During the process of metacognitive reflection, people are able to understand the key components within themselves that cause certain behaviors to exist (Daudelin, 1996; Vasher, 2011). An instructional coach encourages self-reflection through collaborative sessions so the instructional coach and the teacher can arrive at instructional solutions together (Daudelin, 1996; Knight, 2007; Toll, 2009). There is an openness during the self-reflection process allowing for the teacher to identify the required action needed for successful implementation of classroom instruction and further heightening the teacher's efficacy (Daudelin, 1996; Toll, 2009; Woolfolk Hoy & Davis, 2006). An instructional coach/teacher relationship develops over time and can influence teacher efficacy and, therefore, student achievement (Goddard et al., 2000; Tschannen-Moran & Barr, 2003).

A PLC includes educators focused on the concepts of teacher efficacy, intertwined with collective school efficacy, and the belief that teachers can positively impact the learning process of students and provide support to each other during the process of teaching and learning (Goddard et al., 2000; Ellison & Hayes, 2009; Tschannen-Moran & Barr, 2003). Openness to new ideas, experimentation, resilience, attitudes of persistence, enthusiasm for teaching and learning, a positive environment, and more classroom-based decision-making are the results of increased efficacy in a school (Ellison & Hayes, 2009). With a coach as a guide to help with instructional practice, teaching remains a craft that is complex but undoubtedly learnable (West, 2009).Teachers benefit while learning this craft when they have a transparent and honest relationship with an instructional coach that leads to depth in knowledge of content (Knight, 2011; West, 2009). Author and coach Karla Reiss (2009) outlines the essence of the effectiveness of a coach and the influence it has on teacher efficacy. She states:

> You will never maximize your potential in any area without coaching. It is impossible. You may be good. You may even be better than everyone else may be. But without outside input you will never be as good as you could be (p. 167)

Instructional coaching offers support to teachers to become professionals who continuously encourage the students they teach to take charge of their learning through persistence and effort so achievement can happen (Woolfolk Hoy & Davis, 2006).

Support for educators continuing to strive towards an efficacous system is a key ingredient for sustainability and authentic change. Creating a school culture of strength and stability is at the heart of providing teachers with instructional support (Bean & DeFord, 2012; Hall & Simeral, 2008; Knight, 2012). Instructional coaches deliver continuous on-site professional development and learning support for the teachers they serve (Cornett & Knight, 2009; Knight, 2007; West, 2009). True collaboration between an instructional coach and a teacher includes a clear focus and a safe, confidential environment to discuss concerns and success (Ellison & Hayes, 2009; Knight, 2007). It also requires the ability of the instructional coach to move between collaboration and consultation with individual teachers and continue the collaboration by moving towards a system that includes collective efficacy (Lipton & Wellman, 2007; Shaw, 2009). Finally, an important component of providing collaborative opportunities to teachers is to provide time for them to engage in dialog that is reflective, truthful, and transparent (Daudelin, 1996; Knight, 2007).

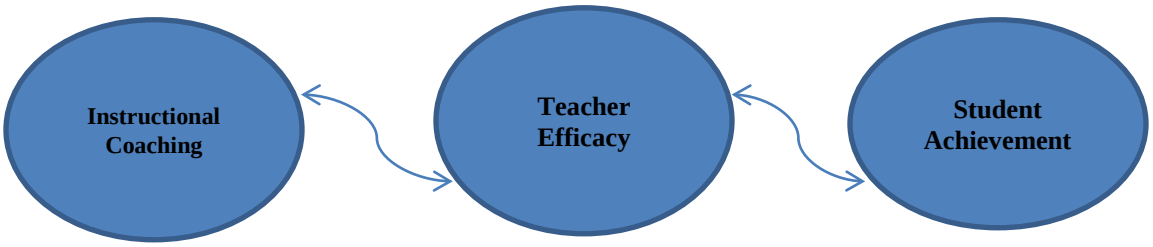
Theoretical Framework

The theoretical framework for this study is an amalgamation of research derived from Jim Knight (2007) and Hall and Simmeral (2008) in the area of instructional coaching, research done by Tschannen-Moran and Woolfolk Hoy (2001) in the area of teacher efficacy, and ideas

about how collective efficacy affects student achievement (see Figure 5) (Tschannan Moran & Barr, 2001) .

Figure 5

Theoretical Framework



Knight (2007) states traditional professional development for teachers fails because of lack of support after the teacher attends the professional development training. Ongoing support is needed for teachers to embrace the new ideas learned in a traditional professional development setting—support that can be given by an instructional coach (Knight, 2007). Knight furthers his argument by stating that teachers who are given instructional coaching support are far more likely to implement new learning strategies, in some cases up to 90% more likely.

School administration consisting of an administrator and instructional coach working together to develop positive school culture within the school they serve offers a supportive environment for teachers to learn (Hall & Simmeral, 2008). Together, the administrator and instructional coach construct sustainable relationships with staff members, provide a clear vision for teachers and their instruction, deliver professional development support that coincides with the school vision, and create positive school changes when necessary.

Tschannen-Moran and Hoy (2001) offer insight for the importance of teacher efficacy to student success. Teachers with strong efficacy within their teaching practice have a belief system that consists of creating a learning environment where all students are capable of learning, even

the most difficult to reach students. Through their research, Tschannen-Moran and Hoy (2001) determined three factors of teacher efficacy that are moderately correlated. They are efficacy in student engagement, efficacy in instructional practices, and efficacy in classroom management.

The purpose of this study is to show the potential relationship instructional coaching may have on teacher efficacy and the effects instructional coaching may have on student achievement where there is currently a gap in educational research. These three aspects within the educational realm have many areas of commonality. Current literature explains much about the importance of these three aspects of education, while alluding to other types of efficacy intertwined with and affecting teacher efficacy (Bandura, 1997; Goddard et al., 2000; Knight, 2007) .The literature also reveals areas that need further research. Figures 1 through 3 illustrate the three areas of research for this study.

Conclusion

While much has been researched regarding the various types of efficacy in a school setting and regarding instructional coaching, research needs to target the relationship between instructional coaching, teacher efficacy, collective efficacy, and the effect instructional coaching has on student achievement (Bandura, 2008; Goddard et al., 2000; Hall & Simeral, 2008; Knight, 2009 Tschannen-Moran & Barr, 2003). Therefore, this study explores the relationship between the instructional coach and classroom teacher to discover whether instructional support increases teacher efficacy. The study also explores the relationship between teacher efficacy and students to discover whether achievement increases with instructional support from an instructional coach. The results provide insight into whether there is a connection between the guidance offered to a teacher and the level of student achievement.

Chapter III

Design and Methodology

Introduction

Teacher efficacy is a major concern in the field of public education (Ellison &Hayes, 2009). Teachers are asked to understand state and federal mandates requiring them to instruct students in a certain way but are not provided ongoing professional development support for successful implementation of these mandates (Goodwin, 2011; Hall & Simeral, 2008). Teacher efficacy affects instructional practice, school community, and student performance (Bandura, 1997; Brown, 2012; Woolfolk Hoy & Davis, 2006). Demands are placed on teachers to ensure adequate implementation of learning for all students (McTighe & Wiggins, 2012; Pimentel & Coleman, 2012b). Students, in turn, are expected to meet the ongoing demands of becoming lifelong learners to help prepare them for future employment in an ever-changing society (Bandura, 1997, Rothman, 2011). Questions begin to surface as to why there is not more attention directed towards teacher efficacy and ongoing instructional support in the educational community at both the state and national levels (Goodwin, 2011; Ravitch, 2010).

This convergent mixed methods study was chosen to help explore four distinct areas: teacher efficacy, collective efficacy, the impact of receiving weekly intentional instructional coaching support in the area of English language arts, and student achievement (Creswell, Plano Clark, 2011; USAID, 2013). Student achievement was analyzed to see if there was a relationship between teacher efficacy, weekly instructional support, and student outcomes in the form of English language arts data.

The topics addressed in this study were chosen to discover whether there was a relationship between teacher efficacy, collective efficacy, instructional coaching support, and

student achievement. Many researchers suggest that instructional coaching is an important factor when supporting teachers and considering their instructional needs (Hall & Simeral, 2008; Killion, 2009; Knight, 2009, 2011). Other research concerning the topic of instructional coaching articulates the need for further research especially in the area of how coaching affects teaching practice (Cornett & Knight, 2009).

Creswell (2008) describes how "research questions narrow the purpose into specific questions that research would like answered or addressed in the study" (p.70). In this convergent mixed methods study, several research questions helped the principal researcher explore educational topics in further detail (Creswell, Plano Clark, 2011; USAID, 2013).

The central research questions for this mixed methods study were:

1. What kind of support can be provided to teachers so their self-efficacy is strengthened within an educational setting?
2. Are teacher efficacy beliefs affected when teachers receive ongoing professional development support from an instructional coach while implementing new learning?
3. Can teachers increase their levels of self-efficacy within their instructional practices?
4. Are high levels of teacher efficacy directly linked to student achievement?

As a result of finding more explicit answers to the connections between instructional coaching, teacher efficacy, and student achievement, this study aimed to find better ways to support educators. Coaching has been affiliated with teacher motivation to change instructional practice and to try new teaching strategies (Killion, 2009; Knight, 2007; Grierson & Woloshyn, 2013). Subsequently, teachers rely on a coach as a knowledgeable partner, resource, and mentor (Shaw, 2009). Instructional coaches can also be perceived as "change agents," ready and willing

to challenge the status quo and make an impact school wide (Shaw, 2009; Cleave & Dailey, 2007).

Participants

In this convergent mixed methods design, there was one set of participants limited to two grade-level groups of upper elementary teachers (see Table 1).

Table 1

Participant Synopsis

Pseudonym	*Personal Statistics*	*Years of Teaching Experience*	*Education*	*Years Teaching at Current Grade Level*
Laura	Female, 41 years old, married	11 years	Graduate School	2 years
Hillary	Female, 36 years old, married	12 years	Graduate School	6 years
Macie	Female, 27 years old, married	6 years	Graduate School	6 years
Trisha	Female, 32 years old, married	12 years	Graduate School	1 year
Andrea	Female, 25 years old, single	3 years	Attending Graduate School	3 years
Avery	Female, 28 years old, married	2 years	College	2 years

Six teachers were recruited from Leads Elementary School (pseudonym used). They were recruited by the school principal for this study because of the established history these participants had with the school, the professional relationship the teachers had with the site-based instructional coach, and the collaborative nature of teamwork established within the upper

elementary grade-level teams. It was requested by the principle researcher that the participants already have an established relationship with the instructional coach since this study would focus on the effects of the instructional support provided to the participants when new learning was introduced. An established relationship was required because of the time factor of creating a trusting relationship between a teacher and an instructional coach and the principle researcher was not testing or studying this particular facet of instructional coaching.

Leads Elementary School is a Title I school with a high mobility rate serving over 500 elementary school students K-5. Title I is a federally funded program that provides funding to school districts with high percentages of disadvantaged students. This funding is to help provide support services to these students to help them be academically successful (Rothstein & Johnson, 2010). Leads Elementary School has the second highest poverty level out of the 11 elementary schools in this particular school district. All of the schools in this district qualify for Title I funding.

The study also included student data from two grade-level student groupings. Approximately 170-200 student assessments were included in this study from the participating teachers' classrooms. Student identity was not revealed to the principal researcher to provide protection to the students involved in this study.

Data Collection

One-on-one interviews were conducted at the beginning of this study (see Appendix D). The interview questions were designed by Dr. Jim Knight, author and researcher in the field of instructional coaching, and used with permission (see Appendix B). Questions selected were piloted in August, 2013, with two different groupings of teachers at another site. Teachers consisted of an English Language Learner kindergarten teacher, a first-grade teacher, a Title I

teacher, a second-grade teacher, and a third-grade teacher. The principle researcher met with these teachers to discuss the quality of the questions, the link the questions had to teacher efficacy, the order in which the questions were asked, and the possible answers the principle researcher could expect. Feedback was given to the principle researcher as to the length of the questions and whether the questions seemed comfortable enough to answer.

After the questions were piloted, the interviews were conducted September, 2013, with teachers who agreed to be participants for this study. Participants signed the informed consent form prior to the interview (see Appendix A). Interviews were digitally recorded, professionally transcribed, and coded for themes. Pseudonyms were used to protect the participants involved in the study. Participants were reassured their identity and interview locations would remain confidential and they could leave the study at any time. The interviews were conducted at coffee houses chosen by participants so they felt comfortable with the location of the interview setting. The principle researcher took time before the interview to record aspects of the interview settings. Details of participants' reactions to the interviews were recorded during the interview process. The interviews were between 20-38 minutes in length. The principle researcher spent time reflecting on each response given immediately after each interview was conducted to adequately record aspects from the interviews. The principle researcher listened to each recording of the interview within three days after conducting each interview to insure the quality of the qualitative research process. After the interviews were analyzed and coded for themes, the participants were contacted by the principle researcher via email. Member checking was needed for clarification on themes identified during the research process. Each participant agreed with the themes that emerged from the interviews and were cited by the principle researcher (see Appendix H).

In addition to the interviews, participants completed the Teachers' Sense of Efficacy Scale, created by Dr. Anita Woolfolk Hoy and Dr. Megan Tschannen-Moran, before and after the research study (See Appendix F). The scale was given to the participants at their school. Participants chose whether to complete the scale before the school day or after their school day ended to comply with their personal schedules. The principle researcher met with the participants at their place of employment with the knowledge of the school administrator. Participants were read the directions to the scale prior to completion of the scale. Details of the setting were recorded by the principle researcher to help determine if the participants felt comfortable in the location chosen. Time was kept while participants completed the scale. Results were organized using a statistically normed measure developed by the researchers Woolfolk Hoy and Tschannen-Moran (See Appendix F). The principle researcher used the Woolfolk Hoy and Tschannen-Moran research to identify whether teacher efficacy changed after receiving weekly guidance from the instructional coach. These results were also analyzed using the Wilcoxon signed rank test to determine growth between the pre and post scale after participants received the intervention from the instructional coach.

The 3-5 Reading Record from the Mondo reading assessment and the Retell/Recall/Comprehension Scoring Sheet from the Mondo reading assessment were administered at the beginning and end of the study (see Appendix I). These assessments were given to determine if there was a relationship between instructional coaching support, teacher efficacy, and student achievement by comparing student scores before and after instructional support was received by a classroom teacher. The purpose of including student data in this study was to understand if weekly instructional coaching support could be considered beneficial enough to change the instructional practice of a teacher in the area of English language arts. If

the teacher changed instruction after meeting with the instructional coach, this study sought to understand if this altered instruction helped increase student achievement. Assessments were given by the participants to students at the beginning and at the end of the study as part of their normal school routine. Student identity was not revealed to the principle researcher to protect the identity of minors in this study. A paired- samples *t*-test was conducted using SPSS for data analysis.

Participants worked with an instructional coach for 10 weeks. The site-based coach was housed at Leads Elementary School. Prior to this study, the instructional coach attended a workshop presented by Jim Knight on instructional coach training, learning and adopting the partnership style of instructional coaching (Knight, 2007). Participants received support from the instructional coach with the implementation of the Mondo curriculum for language arts, analyzing student data to drive classroom instruction, and implementation of a school-wide balanced literacy methodology. The instructional coach went into classrooms to demonstrate Mondo guided reading lessons, met weekly with each grade-level team, and had reflective conversations with participants in the areas of student achievement and literacy based instruction. Feedback and instructional support were offered to teachers by the instructional coach concerning these areas: implementation of the Mondo curriculum, concerns surrounding student achievement, and development of grade-level units with integration of the CCSS.

The instructional coach was asked to keep a reflective journal during the intervention period. The instructional coach summarized these reflections and gave this information to the principle researcher after the intervention had taken place. Clarification was needed by the principle researcher on certain aspects of the summarization provided by the instructional coach.

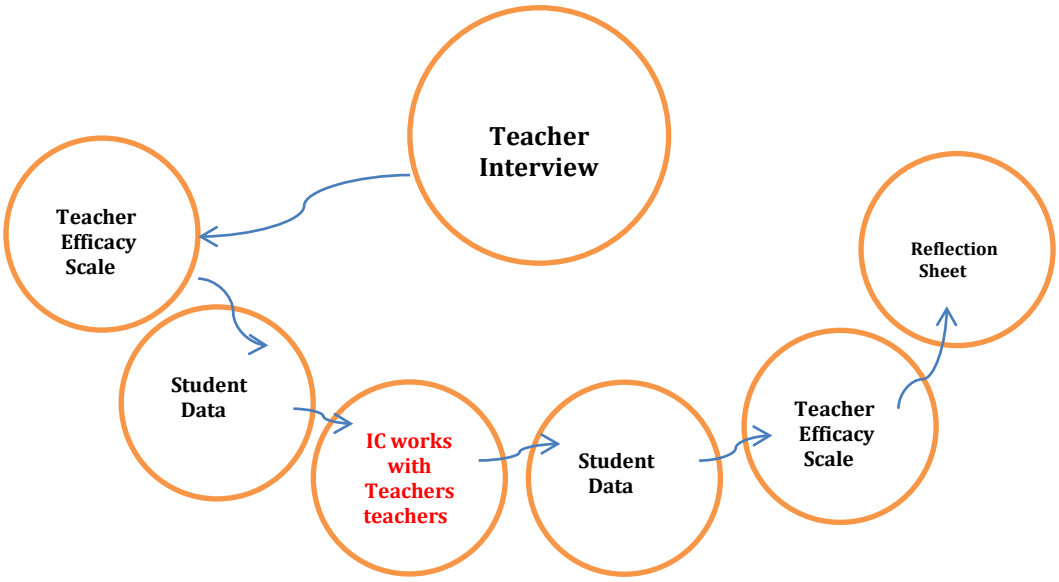
The instructional coach provided additional information to questions the principle researcher had regarding this information.

During the research process, the principle researcher found it necessary to conduct a brief interview with the school administrator. The school administrator was asked to describe the nature of the school setting, the staff members working for her at the school site, and the families this school site served. The mission of the school was described as providing support to students by showing them love and acceptance along with maintaining a safe secure environment to learn. Treating students as family was the first priority according to the school administrator. The principle researcher asked the administrator for the current free and reduced lunch rate at the school site. This rate was referred to as being between 85 and 86 percent.

Participants were given a reflection sheet to document thoughts about the weekly instructional coach support received during this study (see Appendix C). The completed reflection sheets were given to the researcher and coded to determine if instructional coaching had been instrumental in the educational practice of the teachers involved in the study. Participants asked the principle researcher for clarification on questions as needed during the reflection process. Member checking was needed for clarification on statements given on the reflection sheet during the development of the research. All participants responded to the member checking emails in a timely fashion. All information from these forms was kept confidential, and pseudonyms were used in place of teacher names. Information from this reflection sheet was coded and analyzed by the principle researcher.

Figure 6

Diagram of Data Collections



Analytical Methods

The administrator of Leads Elementary School granted permission to conduct this mixed methods study (see Appendix J). All participants were required to sign an informed consent form prior to scheduling the interview (see Appendix A) (Marshall& Rossman, 2011; Merriam & Associates, 2002). Through the use of fundamental ethical principles, such as respect for communities, respect for individuals, and a commitment to minimize risk to participants involved in the study, the primary researcher endeavored to conduct the qualitative portion of the study in an ethical manner (Demircioglu, 2008; Mack, Woodsong, MacQueen, Guest, & Namey, 2005; Marshall & Rossman, 2011). The primary researcher understood that this piece of the research process is fundamentally important to developing trust between the person conducting the interview and the interviewee. To build trust, the interviewer must listen intently to the person being interviewed and conduct the interview in a caring and understanding way (Gabriele, 2012; Knight, 2007; Merriam & Associates, 2002). The principal researcher endeavored to

understand how the participants were involved in a particular setting (school site). It was important for the principle researcher to see how the participants interacted in that setting, how they reacted to the leadership in the school, and the relationship they had with the instructional coach (Merriam and Associates, 2002).

Only the principle researcher had access to the study, including notes, data, and digital recordings, with the exception of a hired professional transcriber of the digital recordings. All data from notes, digital recordings, and thumbnail drives were kept in a locked, fireproof cabinet at the home of the principle researcher. In compliance with the Federal Wide Assurance Code, data from this study will be kept for three years, after which all data from the study will be destroyed (45 CFR 46.115, 2013).

Prior to conducting interviews with participants, the interview instruments were piloted with five teachers at another site. The principle researcher also tested the interview questions with the teachers she works with in the capacity of instructional coach. It is important to note the principle researcher in this study was an instructional coach. However, the distinction needs to be made that the instructional coach who participated in this study was not the principle researcher. The purpose of piloting the questions was to ensure that each question was stated clearly and that none of the questions was misleading. Only after feedback was considered and adjustments were made to the interview questions was the research study begun. Each participant in the qualitative study was interviewed in September of 2013. These interviews were recorded, transcribed, and verified for accuracy.

The Teachers' Sense of Efficacy Scale (see Appendix F) includes areas that match this study in terms of teacher efficacy in the areas of classroom management, lesson design, facilitation of classroom routines, and instructional practice. This scale was administered before

and after the study, and data were compared using the Wilcoxon signed-rank test. This scale was created and used by Tschannen-Moran and Woolfolk Hoy and was used with permission (see Appendix E). The participants used the 3-5 Reading Record and the Retell/Recall/Comprehension Scoring Sheet from the Mondo reading assessment (used with permission, see Appendix G). These assessments were used to collect student English language arts data and were given to the principal researcher. The data were collected at the beginning and end of the study. A statistical analysis using a paired samples *t*-test was performed on this data using a statistical analysis software program.

Limitations and Delimitations of the Study

The intent of this study was to observe the effect of instructional coaching on teacher self-efficacy and analyze whether a change in teacher efficacy affected student achievement. This study included a teacher questionnaire and interview as part of the qualitative portion of the research. It is possible teachers who took part in this study did not perceive that having an instructional coach is important and may have believed that an instructional coach did not provide support to them in any way. It is also possible that the instructional coach had limited knowledge and experience of how to adequately work with teachers from varying backgrounds and capabilities. It is important for an instructional coach to have a depth of knowledge in many areas of instructional practice and have the ability to develop partnerships with teachers they are coaching (Knight, 2011). If the instructional coach lacked these skills, that lack would become a limitation in this study.

Another limitation was possible if the teachers did not understand how to be completely reflective when looking at their instructional practices to determine what needed to change.

Reflection is important to realizing the benefits of working with people in the profession to benefit students.

Other limitations could include the gender and ethnicity of the teachers involved in this study and the location of the school itself. The participants included primarily Caucasian females and generalizations should not be made about underrepresented populations. Limitations could also include the geographic location of this study. This study took place at a Title I school that serves a population of students who come from low socioeconomic backgrounds. Leads Elementary School has the third highest poverty rate out of 11 elementary schools in a district and a high mobility rate among its students. Students are considered to have high academic and social needs. Research indicates that students receiving support from parents, teachers, and social groups have a higher sense of efficacy in both life satisfaction and academic achievement (Kim & Park, 2006). Therefore, student efficacy could be at a lower level at this school than it is at schools where economic levels, along with parent and social support, are high.

There are many areas of research not addressed in this study, and these are considered to be delimitations. The study could have included specialist teachers and could have taken the approach of studying a more specific grouping of teachers (music teachers, physical education teachers, special education teachers). Additionally, research areas that could have been included are student efficacy and how it influences teacher efficacy, the content areas in which teachers feel a strong sense of efficacy while teaching, and the content areas in which they do not feel a strong sense of efficacy while teaching. An aspect that could have been of interest would have been studying two of the same grade-level classrooms that are at two different sites with similar demographics. Another topic of interest is how well prepared teachers feel they are for the field of education once they graduate from a teacher certification program. While these topics remain

interesting and relevant areas to consider for research purposes, they reach beyond the areas of focus in this particular study.

A delimitation in this study was the timeframe of the instructional coaching intervention. A longer intervention time was considered but did not meet the parameters set for this particular study. The principal researcher also considered studying two school sites, one with an instructional coach and one without. While this would have given this study potentially more significant information, it would not have allowed the time necessary to conduct the qualitative research needed to answer certain aspects of this particular study. While this remains an area worth researching, only one site was researched in this specific study. This study cannot be generalized beyond the scope of the sample presented in this body of research.

Chapter IV

Results of the Study

Introduction

Teacher efficacy is an important aspect of student achievement, collaborative school community, and creating a rich learning environment for both students and teachers (Bandura, 1997; Bianco, 2010; Goddard et al., 2000; Hall & Simeral, 2008; Marzano, 2003). Cultivating a nurturing learning environment begins with a stable foundation of school leadership that understands the needs of the school community and acts as an advocate for it (Danielson, 2007; DuFour et al., 2004; Fullan et al., 2006; Fullan, 2008; Hargreaves & Shirley, 2009; Marzano, 2003). Rich, consistent leadership can include school administrators participating in a professional relationship with an instructional coach (Hall & Simeral, 2008; Killion, 2009; Knight, 2011; Shaw, 2009). The coach and the school administrator together construct a common vision for the teachers they serve (Hall & Simeral, 2008; Killion, 2009; Knight, 2011). The relationship between the school administrator and the instructional coach includes a clear understanding of the necessity for instructional coaching and for providing support for great classroom instruction (Hall & Simeral, 2008; Killion, 2009; Knight, 2011). Together, the instructional coach and the principal move toward creating an environment where teachers can learn new instructional strategies and find support during the process of implementing new learning. The administrator and instructional coach create pathways for teachers to acquire new expertise that will support their instructional practice.

Much research has been dedicated to the areas of teacher efficacy, collective efficacy, and student efficacy and the importance of them in the educational setting (Bandura, 1997; Knight, 2007, 2009; Marzano et al., 2011; Pajares, 2006; Tschannen-Moran & Barr, 2004;

Woolfolk Hoy & Davis, 2006; Zimmerman & Cleary, 2006; Zimmerman et al., 2006). Instructional coaching contributes to improving the instruction in schools and across school districts for the betterment of an educational community (Killion, 2009; Hall & Simmeral, 2008; Shaw, 2009). Shared leadership between administrators and instructional coaches has helped to develop healthy school environments where teachers and students are moving towards common goals and a shared vision to improve student learning (Killion, 2009; Hall & Simmeral, 2008; Shaw, 2009). Included in this vision is constructing a school environment where learning progressively is strengthened.

Teacher efficacy, student efficacy, collective efficacy, instructional coaching, and shared leadership share mutual ideas—ideas that are interwoven and are ingredients found in highly effective schools (Bandura, 1997; Knight, 2007, 2009; Marzano et al., 2011; Hall & Simeral, 2008; Tschannen-Moran & Barr, 2004; Woolfolk Hoy & Davis, 2006; Zimmerman & Cleary, 2006). This study attempts to show the relationships found between these topics. There is a need to fill a current gap in educational research to help enrich the understanding of the impact instructional coaching can have on the effectiveness of sustainable instructional support to teachers. This study attempts to show the relationship found between these topics. The questions guiding this research study are:

1. What kind of support can be provided to teachers so their self-efficacy is strengthened within an educational setting?
2. Are teacher efficacy beliefs affected when teachers receive ongoing professional development support from an instructional coach while implementing new learning?
3. Can teachers increase their levels of self-efficacy within their instructional practices?
4. Are high levels of teacher efficacy directly linked to student achievement?

Data Collections

The convergent mixed methods design chosen for this study allowed the opportunity for the researcher to collect both qualitative and quantitative data and merge these results together during the analysis process (Creswell & Plano Clark, 2011). Synthesizing results from both types of data allowed for a deeper understanding of the problems addressed in this research study (Creswell & Plano Clark, 2011). This design was chosen to capture a wide range of perspectives to answer components listed in the research questions (Creswell, 2008; USAID, 2013). This convergent mixed methods design included the following components: teacher interviews, Teachers' Sense of Efficacy Scale (long form), student comprehension data taken from Mondo curriculum, and a Reflection Sheet.

The principle researcher used a basic interpretive design to study, analyze, and make meaning from the data collected from the participants (Marshall & Rossman, 2011; Merriam & Associates, 2002). Qualitative methods were chosen to study participants' understandings of teacher efficacy, school culture, professional development, professional pedagogy, and instructional coaching. Included in this portion of data analysis was the Reflection Sheet given to the participants at the end of this study to encourage them to reflect on the effectiveness of their experiences during the 10-week intervention time.

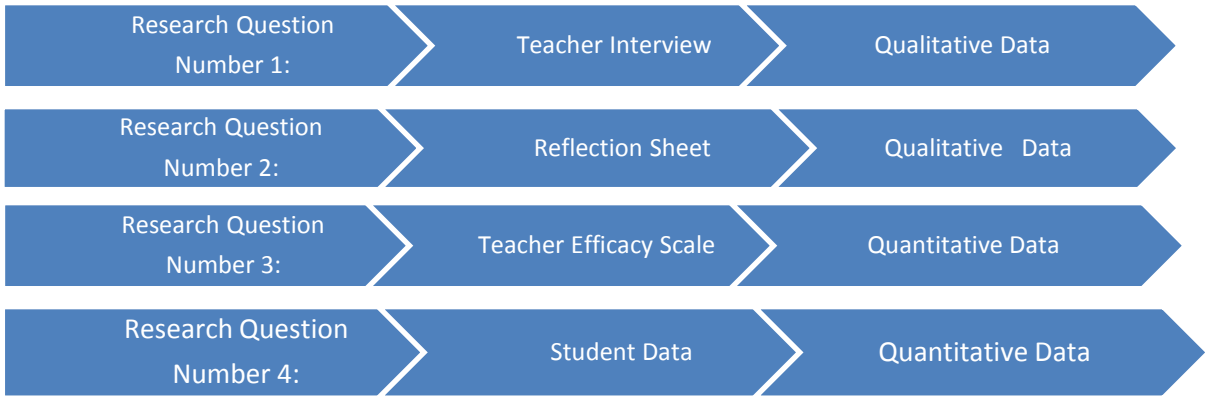
Analysis from the Teachers' Sense of Efficacy Scale was used in a pretest and posttest fashion using the Wilcoxon signed-rank test. Instructional coaching was used as the intervention piece between the pretest and posttest. This approach was chosen because of the small available sample size of the participants and the importance of measuring the specific intervention in this study (Harris, et al., 2006). Student data included in this study were analyzed using a paired samples *t*-test (Laerd Satistics, 2013a; Johnson, 2012; Lowry, 2013; Tanner, 2012). Student

scores were grouped together by classroom, Mondo assessments were categorized, and a paired sample *t*-test was used for analysis purposes.

Figure 7 depicts the organization of the data analysis portion of the study. When using a convergent design, the researcher must keep the different strands of the data independent during the analysis process (Creswell & Plano Clark, 2011). The independent analysis of the results as shown in Figure 7 provided the stability to complete the understanding of this research study (Creswell & Plano Clark, 2011).

Figure 7

Research Questions, Data Collections, and Data Description



Research Question #1

Professional development training sessions for educators have traditionally taken place outside of a school setting (Knight, 2007). Often, the learning teachers encounter during these sessions remains dormant because of a lack of teacher support during the implementation process (Knight, 2007). A consequence to consider is whether teacher efficacy becomes affected by this failure to implement new learning (Karimi, 2011). Professional development and support for teachers must exist in order for the classroom instruction to remain effective (Calkins et al.,

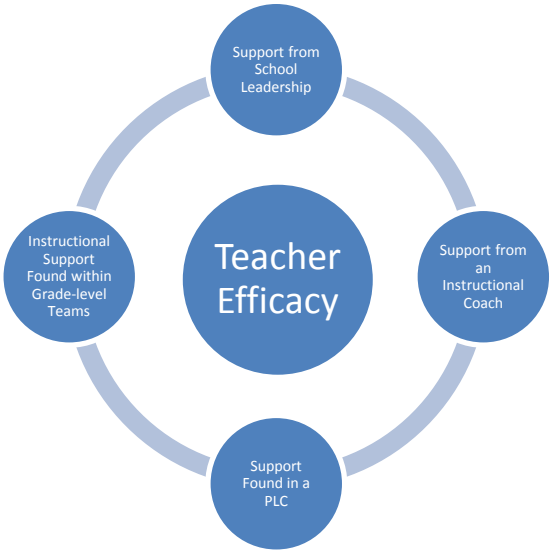
2012; DuFour et al., 2004). Surrounding teachers with support from PLCs, instructional coaches, and school administration provides strength and stability when new learning is being implemented (Hall & Simeral, 2008). It is also important for school vision to remain consistent and educational beliefs of teachers to remain constant. This is an intrinsic belief that all students can learn, which provides stability and benefits the system as a whole (Fullan et al., 2006). The importance of instructional support and teacher efficacy led to the first question of this study: What kind of support can be provided to teachers so their self-efficacy is strengthened within an educational setting?

Data used for this portion of the research were taken from the initial teacher interview conducted by the principle researcher with each participant. To answer the first research question, qualitative data from a basic interpretive study was utilized (Merriam & Associates, 2002). Basic interpretive studies seek to discover and understand the perspectives of participants involved in the study through interviews, observations, and documentation analysis (Marshall & Rossman, 2011; Merriam & Associates, 2002). The components of a basic interpretive study consist of providing rich, descriptive accounts of the findings, discovering common themes in the data, and using literature to support the results found by the researcher (Merriam & Associates, 2002). The intention of the interviews was for the researcher to gain an understanding of a) the participants' educational beliefs, b) school culture, c) instructional support, and d) personal likes and dislikes of professional development sessions. The purpose of the interviews was to see if the components of an efficacious system existed at the research site. Questions were adapted by the principle researcher from Dr. Jim Knight's work and used with permission (see Appendix B) (2007). The interviews were transcribed professionally, coded for themes, and analyzed for accuracy. Figure 8 shows the themes found throughout the interviews.

Themes from interviews regarding support found in a school setting. The most common themes from the teacher interviews were the necessity for support from school leadership (N=31), the instructional coach (N=28), a PLC environment (N=22), and grade-level teams (N=14). Member checking was used after the themes were found and all participants from this study agreed with the four themes found during the interview process by the principle researcher.

Figure 8

Graphic of Teacher Efficacy Surrounded by Support



Support from school leadership. Participants established during the interviews the importance of having leadership provide the groundwork to generate a positive school culture. Instructional support, from the instructional coach and school administrator, was a foundational piece needed for participants to experience success in their classrooms. Participants discussed various ways in which they received instructional support from school leadership. Leaders encouraged them to seek leadership opportunities within the school to help generate a stronger

PLC, validated them in their classroom teaching, encouraged them to share their expertise with other colleagues, provided reassurance when instructional practice needed to be refined, and offered reinforcement when self-doubt surfaced.

Further evidence of instructional support provided to the participants surfaced in the area of professional growth. Participants were asked during the interview about what their professional goals were, and what encouraged them to pursue these goals or kept them from pursuing these goals. Participants spoke of being encouraged by the school administrator to seek leadership positions on the school leadership team, pursue outside opportunities for professional development, attend graduate school, become involved in the PTA (parent teacher association for the school), and learn to speak Spanish as the school serves a high population of native Spanish-speaking families. The participants were highly active members in their school community, and most were committed to positions that required work outside of their regular classroom duties. Laura spoke of the encouragement she received from the school administrator by stating:

> This year I'm in the leadership team and the technology team. I have to do School Net and educate the teachers (at Leads Elementary) and be the liaison for the State Department to the school. I think that they're part of my professional growth as an educator. I think that it shows a level of trust from administration…that they trust me and that I can handle more on my plate.

A common barrier participants talked about during the interviews that kept them from pursuing professional goals was lack of time. The lack of time to pursue educational goals kept participants from learning new instructional strategies, and participants were concerned about time away from loved ones to pursue these goals.

Participants were asked how their job had changed in the past five years and what aspects of their job they really liked. Being provided with instructional support was one of the areas mentioned during the interviews of an area that had changed. The unwavering vision of the school administrator was stated as both a change and something they liked about their job. The participants mentioned that the school administrator paired teachers in the building with colleagues she felt could work well together as grade level-teams in hopes they would provide support to each other in capacities such as classroom instruction. Participants disclosed that past school administration lacked the ability to bring teachers together to work toward a common purpose. Participants spoke of the vision the current administrator had to form a strong PLC system that brought teachers together for mutual persistence toward student success. The participants expressed feeling valued by their school administrator and that their professional abilities mattered. Hillary expressed her thoughts on this matter by stating:

> (Before the current administrator) I never really had a voice. I think everybody has a voice now. It's important that we're heard, and it matters, where before it didn't. I really, truly enjoy my job a lot more than I did five years ago. So it really matters who your leader is.

Participants mentioned the school leadership provided support to them by valuing the unique strengths each educator brought to a school-wide system (Bandura, 1997).

Trust between teachers, the school administrator, and the instructional coach is an important feature of a school environment where efficacy is strengthened within teachers. Participants in this study showed evidence of these trusting relationships throughout the interview process by mentioning that they felt professionally valued and felt challenged to become better teachers. Participants often mentioned the administrator and the instructional

coach by referring to them as building administration, or mentioned both of them in the same thought throughout the interview process, an indication shared leadership existed at the school site.

Through observations, the principle researcher concluded that a professional relationship between the school administrator and the instructional coach was well established. During the research process, the principle researcher was able to observe the interactions of the instructional coach and the school administrator at the school site and at two professional development settings outside of the school. The researcher noted that the instructional coach and the school administrator worked together to problem solve and share ideas for future professional development for their staff, and they demonstrated a genuine connection to the teachers and community they serve. During these interactions, an issue arose about a meeting the principal had with a grade-level team. The grade-level team had concerns with collecting and understanding their student data. The principal confided in the instructional coach by discussing the concern. Together they agreed the instructional coach would support this team by contacting them straightaway to help them with the questions and concerns they had.

Support from an Instructional Coach. Consistent encouragement and instructional support was provided to the participants from both the school administrator and the instructional coach, and the support was often made evident throughout the interviews. For example, participants talked about receiving support in their classrooms from the instructional coach through the process of implementing new curriculum. In the teachers' classrooms, the instructional coach modeled lessons using the Mondo reading curriculum the school adopted in the fall of that year. The instructional coach also offered feedback on units grade-level teams were creating using the CCSS and met individually with teachers to help them set instructional

goals. Support provided by the instructional coach consisted of formalized sessions, such as collaboration meetings, and informal settings that the instructional coach referred to as “hallway conversations.” The instructional coach mentioned the staff oftentimes stopped her as she walked down the hallway to ask for help with their classroom instruction or to ask her for a quick observation while they taught a lesson. The instructional coach mentioned these “hallway conversations” benefitted the professional relationship she had with the participants in the study and helped to guide the instructional practice as staff was implementing both CCSS into their lesson planning and learning to teach Mondo curriculum. Feedback from the instructional coach oftentimes was needed at a moment’s notice while implementation was happening.

The instructional support offered by the instructional coach to the participants provided stability to teachers as new learning took precedence in their instructional practice. During the interviews, participants were asked what kinds of professional learning were most effective for them. Participants expressed the need for the professional development sessions to be hands-on learning experiences. The instructional coach provided professional development opportunities in which she modeled new learning for the staff and the staff practiced the new learning. Trisha mentioned the value of this type of visual learning in professional development support. It gave her the ability to visualize what her students might be experiencing in the classroom and the possible issues with the implementation of the new learning. Trisha said hands-on professional development helped her know how to best prepare instruction for her students. Participants expressed the importance of being guided through the process of understanding by doing; they gained awareness about instructional delivery and how to provide direction for their students.

When asked what they liked about their job, the interview participants expressed their appreciation for the support they received from the instructional coach. Andrea spoke of the gratitude she felt when she stated,

> I've been now at two different schools and I just really appreciate the leadership from (the administrator) and (the instructional coach). I think they're just really knowledgeable and educated as far as how to help us become better teachers and meet our needs in our classrooms and be supportive. They have that relationship with us as professionals, and I would say that's what's keeping me here.

A school that is able to provide teachers with ongoing instructional support offers encouragement and stability to them by valuing them as professional learners as well as experienced educators.

Support found in a PLC. PLCs were formed to increase instructional support through collective discussions among faculty. At Leads Elementary School, PLC meetings occurred weekly in grade-level team meetings and during midweek professional development sessions organized by the school principal and instructional coach. References made to the PLC environment during the interviews indicated the importance of discussing instructional practice, sharing ideas about instruction, including collaborative workspaces for students and staff, and having a common vision among staff members. Participants emphasized the impact such a positive work environment has on teachers and students.

Avery spoke of the necessity of working in a positive environment as a means to support students and their learning needs. She specified the significance of working in a positive environment and how it connects to the quality of instruction taking place in her classroom.

> I love my team. I love Leads Elementary School. It is feeling more like a family there and it's just nice to feel comfortable since it is your second home. I want something that's rewarding that I'm going to look back and say, "I did this and I'm proud of it." I just love that (teaching) gives back every day.

A collaborative working environment focused on healthy classroom instruction creates stability within an efficacious school system working towards the achievement of students (Bandura, 1997; Goddard et al., 2000). One component of such a system at Leads Elementary was inclusion of classroom walkthroughs. During these walkthroughs, staff members visited other classrooms to watch the implementation of the Mondo curriculum. Participants indicated that there was great value in watching other grade-level team members implement the new curriculum and in seeing how the curriculum was taught at different levels. When teachers had time to debrief with the instructional coach after these walkthroughs, they had the opportunity to reflect on the instruction they had observed (Daudelin, 1996).

Instructional support found within grade-level teams. During the interviews, participants described the benefit of having instructional support in a variety of ways. Participants sought guidance from their grade-level teammates through collaborative sessions. Sessions included formal and informal gatherings between grade-level associates. Designing content-specific units, asking for feedback from grade-level colleagues, and conducting planning sessions were some of the topics talked about during the interviews. Collaboration between grade-level teams also surfaced as being important in these interviews. Trisha specified the significance of aligning with team members by stating, "Alignment is everything—alignment with my team and alignment with myself and my teaching." She went on to state that alignment

with her team was paramount to improving her instructional practice and to reaching more students in her classroom.

Pedagogical alignment between grade-level members proved to be an important element of a support system the participants could rely on. When asked about professional goals, participants spoke of aligning their ideas about instruction, having a common belief between colleagues that every student can learn, and making a commitment as a school to believe education is the door to opportunity for the students served. Participants viewed these goals as necessary components of a supportive system built for educational success.

The importance of communication about students and best practices was a common theme woven throughout the interviews. Offering and accepting feedback formed the essence of the working relationships among participants. Avery made note of the significance and vitality of open and honest communication. She articulated how blessed and comfortable she felt in transparently talking to her team about new instructional ideas and trusted these ideas would be considered by her team. She felt she could openly show vulnerability through her ideas and still be given genuine feedback about them.

Participants spoke openly about their regard for their teammates and how teamwork provided the infrastructure needed to pursue great teaching practice. Macie reflected on these philosophies in this statement:

> I love the people I work with. I have an awesome team this year with everybody on board and everybody believing the same things about (teaching)—that all children can learn and that we can make a difference. And they're all excited and passionate about teaching, which is great.

Participants felt instructionally supported by the school administration, instructional coach, PLC, and grade-level teams, which helped them to find success while learning new instructional skills.

Research Question #2

Support for teachers through the process of professional learning is an element of a highly effective school environment (DeFour et al., 2004). Learning new instructional strategies, understanding curriculum design, and preparing lessons are all parts of the professional learning process for educators (Calkins et al., 2012; Marzano, 2003). Often, without instructional support, the implementation of professional learning can remain nonexistent for teachers (Knight, 2007; Karimi, 2011). Guidance, careful planning, and collaboration are necessary for a teacher to take new instructional learning and integrate it into the classroom (Bean & DeFord, 2012; Killion, 2009; Lipton & Wellman, 2007). Although studies have shown that school efficacy is affected by such instructional support, this study narrows the focus by asking this question: Are teacher efficacy beliefs affected when teachers receive ongoing professional development support from an instructional coach while implementing new learning?

Participants were recruited for this study because of their established history with the school, the professional relationship they had with the site-based instructional coach, and the collaborative nature of teamwork established within the upper elementary grade-level teams. Teacher efficacy data were taken at the beginning and end of the study, with a 10-week specific intervention in between which included support from the instructional coach. Areas focused on during the intervention period included elements of instructional support in the following capacities:

- Support with implementation of Mondo reading curriculum through classroom modeling by the instructional coach (curriculum new to the school at the beginning of this study)
- Creation of ELA (English language arts) units
- Training for understanding CCSS (standards required by law in the state the study took place in)
- School-wide implementation of word study
- On-site professional development sessions with staff
- Hallway conversations discussing implementation of new learning and instructional practice
- One-on-one meetings with participants to help support and encourage during the implementation process

This instructional support given to the participants during the study is further explored in this document. The purpose of the interview was to understand if the components of an efficacious system existed at the research site. All interventions involved in this study were presented, organized, or developed by the instructional coach. Some of these interventions included input from the school administrator.

After the completion of the 10-week intervention from the instructional coach, participants completed a three-question Reflection Sheet (see Appendix C) (Knight, 2007). The questions asked participants to reflect on how they felt about learning and collaborating with the instructional coach, what ideas about instruction were the most important, and how they could use this new knowledge in the future.

Learning and collaborating with the instructional coach. Results from the Reflection Sheet revealed the participants' reliance on the instructional coach for professional development support. Participants listed a variety of ways they received support from the instructional coach during the intervention period. The teachers received assistance from the coach while unit planning using the CCSS, constructing language arts lessons, learning how to understand and use assessments, asking questions regarding implementation of instruction, brainstorming to find solutions to meet the needs of individual students, and implementing Mondo curriculum. Five of the participants emphasized how important collaboration with the instructional coach was to their ability to implement new instructional strategies.

The Reflection Sheet results indicated that the participants felt professionalism and trust towards the instructional coach. Andrea specified in her response the importance of maintaining a professional relationship with an instructional coach.

> She has such a wealth of knowledge in many content areas and great teaching strategies. I feel very confident in going to her anytime for assistance. (The instructional coach) has been working on (word study) and balanced literacy. She has done a great job teaching the whole picture of Mondo and a new way to do reading groups.

Important ideas about instruction. On the Reflection Sheet, participants indicated feeling more confident in their instructional practice while being supported by an instructional coach. Developing a partnership with the instructional coach allowed the participants to ask specific questions pertaining to their own instruction.

Results from the Reflection Sheet strongly indicated an increased strength within teachers' instructional efficacy. For example, teachers indicated a willingness to change instruction to meet kids' needs and give them masterful teaching experiences. Other indications

of strengthening teacher efficacy were reflections about changing small group learning to meet individual student needs, bringing the knowledge learned about instructional practice into the lessons presented to students, and asking the instructional coach to come and demonstrate new learning in classrooms. Participants felt the instructional coach could support them in a variety of ways, and the participants utilized this support. Hillary indicated that she felt more self-reliant after utilizing the support from an instructional coach. “I feel more confident in my instruction with Mondo. If I have questions the (instructional coach) gives me clear, honest answers and tells me what my instruction looks like from an outside point of view.”

Participants often sought guidance and direction from the instructional coach to strengthen their instructional efficacy. Macie sought support from the instructional coach while problem solving and stated, “I feel like I can tackle any problem through collaboration and brainstorming with (the instructional coach). She helps me look at problems in different ways and find solutions that meet the needs of my students.”

Participants trusted the knowledge of the instructional coach when pursuing a direction to take with their instruction. Andrea felt that she could trust the professional judgment of the instructional coach in many diverse areas. “The (instructional coach) has such a wealth of knowledge in many content areas and great teaching strategies. I feel very confident in going to her anytime.” Because they developed a professional relationship with the instructional coach, the participants felt they were able to seek the help they needed at any time.

Use of new knowledge. On the Reflection Sheet, participants expressed the richness and quality of the learning they had received from the instructional coach during the intervention. When asked how they would use the new knowledge learned, participants indicated they would explicitly model new learning to struggling students while teaching comprehension, work on

incorporating English language arts into all content areas, and remain reflective enough to change instruction when it would benefit student learning.

Research Question #3

Self-efficacy is grounded in Albert Bandura's (1997) framework of the study of human agency. It consists of beliefs people have about their ability to exercise influence over what they can and cannot do (Bandura, 1997; Skaalvik & Skaalvik, 2010). Within the field of education, it is important to understand the effect teacher efficacy has over instructional practice. Teacher efficacy can determine the effort invested in teaching and the aspirations a teacher will seek (Tschannen-Moran & Woolfolk Hoy, 2001. Tschannen-Moran and Woolfolk Hoy (2001) indicate the need for more research in areas that might contribute to increasing or decreasing the efficacy of a teacher. The impact teacher efficacy has on student achievement lends itself to ask the question of whether teacher efficacy can be influenced by instructional coaching (Tschannen-Moran & Woolfolk Hoy, 2001). For this section of the research study, use of quantitative research methods was considered the most effective way to determine the answer to question number three: Are high levels of teacher efficacy directly linked to student achievement?

To explore teacher efficacy, the primary researcher used the Tschannen-Moran & Woolfolk Hoy Teachers' Sense of Efficacy Scale included in their study *Teacher efficacy: Capturing an elusive construct* (2001) (see Appendix F). Tschannen-Moran & Woolfolk Hoy state the effects and importance of teacher efficacy in areas such as student outcomes, enthusiasm for teaching, and openness to new instructional methods. Their scale measures the capabilities that educators find important to their instructional practices. This scale has been tested and found to have both validity and reliability.

The Teachers' Sense of Efficacy Scale (TSES) can be used as either of two forms: the short form (12-item form) or the long form (24-item form). The 24-item form was chosen for this study. The scale includes questions in three areas of teacher efficacy: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. The scale is scored by computing the means of the responses in the three categories listed above. Table 1 shows the mean scores of the combined scores of the participants' scale by listing results before and after a 10-week intervention period by the instructional coach. Scores were grouped according to the Tschannen-Moran and Woolfolk Hoy scoring guide.

Table 1 lists the results found on the TSES. The overall results are a compilation of scores from the three factors of efficacy: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. Research using the TSES includes descriptive statistics showing the results of the scale revealing the initial scores of the mean and standard deviation from the overall results (Garvis & Pendergast, 2011; Ozder, 2011; Sari et al., 2009; Tschannen-Moran & Woolfolk Hoy, 2001). Reporting the mean results from the TSES shows the actual self-efficacy perceptions of the participants taking the scale (Sari et al., 2009).

The TSES includes a 9-point scale for each item, with anchors at 1-nothing, 3-very little, 5-some influence, 7-quite a bit, and 9-a great deal (Tschannen-Moran & Woolfolk Hoy, 2001). The calculated points were divided into 24 to obtain the total teachers' efficacy since the scale consists of 24 questions, and divided into the three categories to attain the points in each area of teacher efficacy (Ozder, 2011). Table 2 compares the mean value from the pretest and posttest.

Table 2

Descriptive Statistics for Teachers' Sense of Efficacy Scale Pretest/Posttest

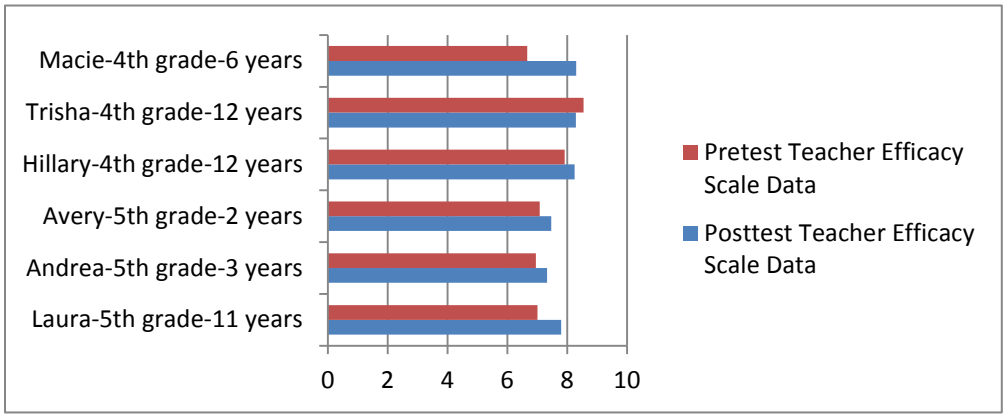
Dimensions	N	Pretest Mean	Pretest Std. D	N	Posttest Mean	Posttest Std. D
Total for TSES	6	7.36	.71	6	7.90	.44
Efficacy in Student Engagement	6	7.14	.62	6	7.67	.52
Efficacy in Instructional Strategies	6	7.10	1.02	6	7.73	.82
Efficacy in Classroom Management	6	7.84	.91	6	8.32	.55

These scores report that the participants showed the biggest increase in their efficacy in the area of instructional strategies.

A bar graph (Figure 9) was organized according to grade-level groups and years of teaching experience of the participants. Research reveals years of teaching experience could be an indication of the level of teaching efficacy a teacher may have (Elliot et al., 2010; Lee, Patterson, & Vega 2011; Ozder, 2011).

Figure 9

Individual Participant Results of the Teachers' Sense of Efficacy Scale



As is seen in Figure 9, Macie showed the largest increase (M=6.67, M=8.29) whereas Trisha was the only participant to show a decrease in mean scores (M=8.54, M=8.29). The results indicate the intervention from the instructional coach influenced the overall efficacy of five of the participants in this study. The years of experience indicated on Figure 9 are discussed in Chapter V.

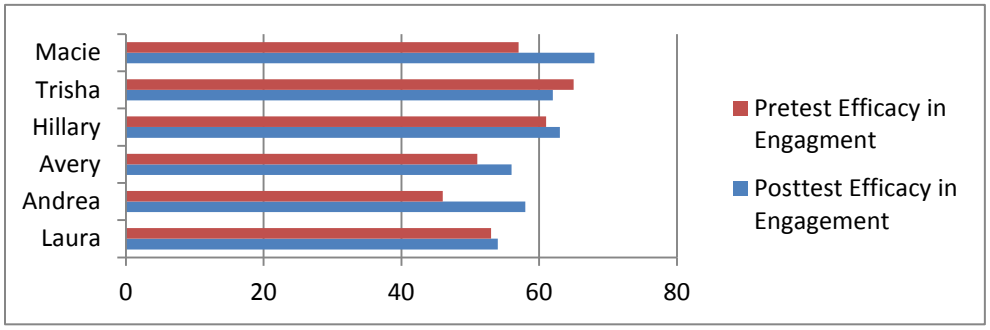
Findings related to the wilcoxon signed-rank test. The Wilcoxon signed-rank test was performed in order to determine whether the differences between the pretest and the posttest scores were statistically significant (as indicated by the *p* value) in the three areas of the Teachers' Sense of Efficacy Scale: efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. The Wilcoxon signed-rank test is a non-parametric alternative to the *t*-test (Dimitrov & Rummrill, 2003; Laerd Statistics, 2013b). This test was used to calculate the teacher efficacy data because the data fit the assumptions required to use this test: Teacher efficacy data was independently drawn (data points were independent of one another), the variable was intrinsically continuous, the test measures ordinal data used from

scaled measurement, and the Wilcoxon signed-rank test can be used with small samples of data (n<5) (Laerd Satistics, 2013b; Lowry, 2013; Tanner, 2012). Figures 10, 11, and 12 show the results of the tests.

The Wilcoxon signed-rank test allows the researcher to look at descriptive statistics to help explain the positive or negative differences between related groups of participants. In this study, it was used to analyze pretest and posttest efficacy score data. As part of the analysis of the differences between two related groups, it is important to report the median (Mdn) difference between the two groups and whether this difference is considered to be statistically significant (Laerd Statistics, 2013b; Lowry, 2013; Tanner, 2012).

Figure 10

Results of the Wilcoxon Signed-Rank Test in Student Engagement



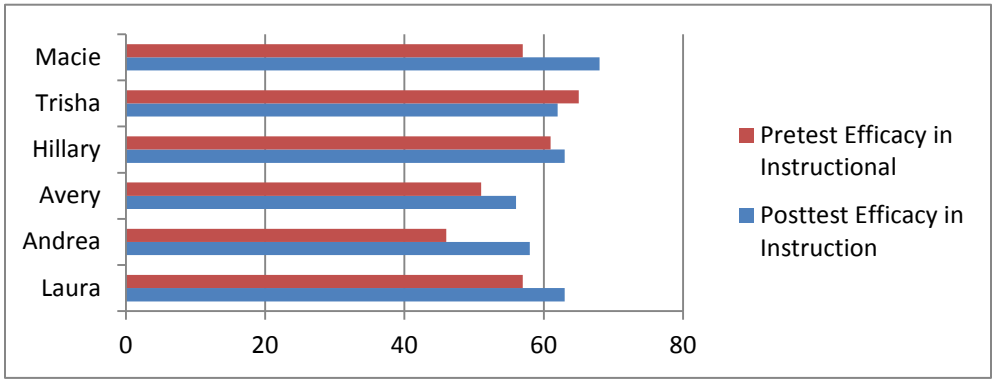
The numbers on the bottom axis of the bar graph indicate the total score possible for efficacy in engagement. The range of scores was 8 (nothing), and 72 (a great deal). Of the six participants in this study, five participants (N=5) scored higher in student engagement efficacy after the 10-week intervention, whereas one participant (N=1) scored lower.

For the six participants, the posttest scores as analyzed by the Wilcoxon test did not show a statistically significant difference in teacher efficacy for engagement after the intervention

occurred (z= 1.57, *p*>.05). And neither did the increase (Mdn=5.00) between the before and after median scores (Mdn=60.00 and Mdn=55.00 respectively) prove to be statistically significant.

Figure 11

Results of the Wilcoxon Signed-Rank Test in Instructional Strategies

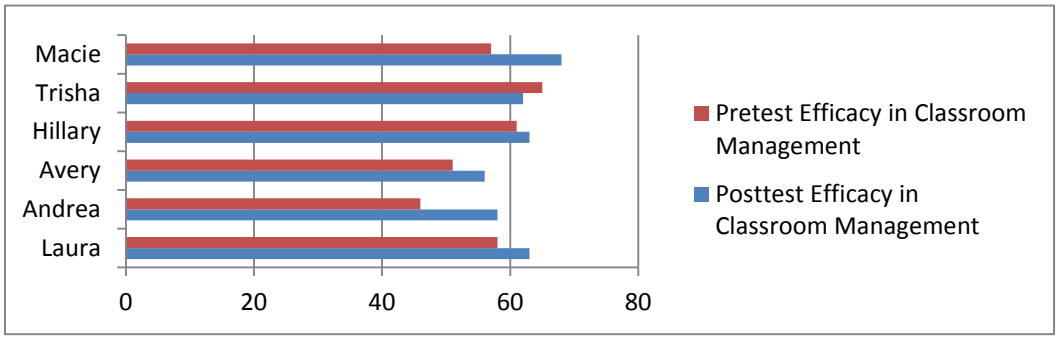


The numbers on the bottom axis of the bar graph indicate the total score possible for instructional efficacy. The range of scores was 8 (nothing), and 72 (a great deal). Of the six participants in this study, five participants (N=5) scored higher in instructional efficacy after the 10-week intervention, whereas one participant (N=1) scored lower.

For the six participants, the posttest scores as analyzed by the Wilcoxon signed-rank test showed a statistically significant difference in teacher efficacy for instructional strategies after intervention occurred (z= 2.0, *p*< .05). Additionally, the increase (Mdn=9.50) between the before and after median scores (Mdn=55.00 and Mdn=64.50 respectively) was statistically significant.

Figure 12

Results of the Wilcoxon Signed-Rank Test in Classroom Management



The numbers on the bottom axis of the bar graph indicate the total score possible for classroom management efficacy. The range of scores was 8 (nothing), and 72 (a great deal). Of the six participants recruited to the study, the instructional coaching intervention elicited an improvement in efficacy in the area of classroom management in four participants (N=4) compared to participants' efficacy in the area of classroom management prior to the intervention. One participant (N=1) saw a decrease in improvement in the area of efficacy in classroom management and one participant (N=1) did not see an increase or a decrease in scores.

For the six participants, the posttest scores as analyzed by the Wilcoxon signed-rank test did not show a statistically significant difference in teacher efficacy for classroom management after the intervention occurred ($z= 1.76$, $p>.05$). And neither did the increase (Mdn=3.5) between the before and after median scores (Mdn=66.00 and Mdn=62.50 respectively) prove to be statistically significant.

In conclusion, the results from the Wilcoxon signed-rank test indicated that intervention from an instructional coach did not have a statistically significant effect in the areas of efficacy in engagement and efficacy in classroom management for the study participants. The results of

the Wilcoxon signed-rank test in the area of instructional strategies indicated a statistically significant score that may have resulted from the influence by the instructional coach.

Research Question #4

When teachers create masterful learning experiences for students, the students have the opportunity to find academic success (Bandura, 1997; Woolfolk Hoy & Davis, 2006). Teachers' beliefs in their ability to structure masterful learning experiences for their students hinges on whether they have high or low efficacy in their teaching practice (Bandura, 1997). Teachers with high levels of perceived efficacy generate and devote more time to authentic learning experiences, set high expectations for students, and believe every student will learn (Bandura, 1997; Fullen et al., 2006; Garvis & Pendergast, 2011; Marzano et al., 2011; Woolfolk Hoy & Davis, 2006). Teachers with low levels of perceived efficacy spend more time in the classroom on nonacademic activities, easily give up on students who do not get good results, and waver in their expectations for their students (Bandura, 1997; Goodwin, 2011; Marzano, 2003). For this section of the research study, quantitative research methods were considered the most effective way to determine the answer to question number four: Are high levels of teacher efficacy directly linked to student achievement?

Within this portion of the research, a comparison was made between student achievement and the teacher's efficacy in the area of instructional practice to study whether intervention (instructional coaching support) had an effect on student achievement.

A paired samples *t*-test was used to measure the student data scores in this study. A paired samples *t*-test was chosen because the data met the assumptions of the test criteria. The assumptions were that there was one continuous variable (effect of instructional coaching on the classroom instruction of each teacher) and a dichotomous variable, which consisted of matched

pairs (students from each teacher's classroom) (Dimitrov & Rumrill, 2003; Laerd Statistics, 2013a; Tanner, 2012). The student data also met the assumption the observations were drawn from a normally distributed population (de Winter, 2013; Laerd Statistics, 2013a).

These results were compared to the Mondo student data in the form of a paired sample *t*-test to see if the instructional coaching intervention received by the teachers had any effect on student achievement (see Table 3). Much of the professional instructional support was towards implementation of Mondo reading curriculum. The support provided by the instructional coach included staff trainings, demonstration of guided reading lessons in participants' classrooms using the guided reading portions of the Mondo curriculum, and weekly grade-level discussions led by the instructional coach. The instructional coach also helped participants interpret student data to guide their instructional practice. The instructional coach had individual conversations with teachers on what they were experiencing in the classroom with implementation of new teaching practices.

Table 3

Results From Paired t-test for Student Data

Student Data	N	Mondo pretest Mean	Mondo posttest Mean	Difference Pretest/Postest Mean	Pretest SD	Posttest SD	Pretest/Posttest Std. Deviation	*p* value	Cohens *d*
Macie	23	79.74	93.57	13.83	26.86	28.13	7.87	.000	1.75
Trisha	30	101.97	114.97	13.00	26.09	22.78	8.23	.000	1.57
Hillary	28	105.36	117.11	11.75	23.88	26.78	20.60	.005	.57
Avery	25	105.12	111.84	6.72	20.26	21.95	3.87	.000	1.04
Andrea	29	110.10	113.97	3.86	28.38	26.65	3.87	.000	1.04
Laura	21	108.67	116.38	7.71	17.29	19.09	3.88	.000	1.99

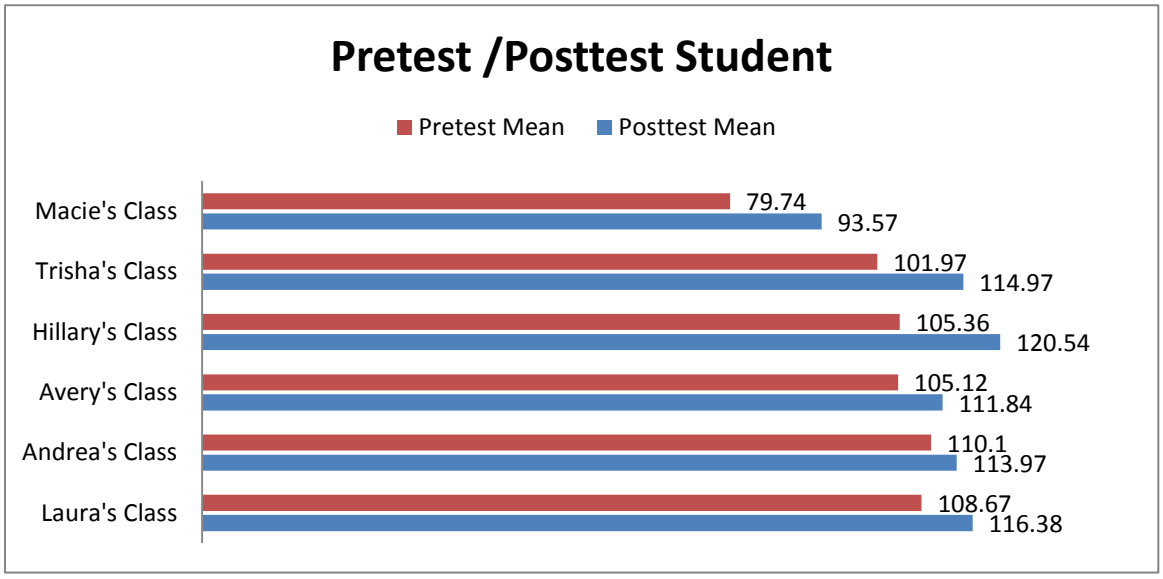
The paired samples *t*-test showed the differences between the pretest mean and the posttest mean. Analyzing these means is appropriate for comparisons related to the measurement

of differences between the student scores (Dimitrov & Rurill; 2003). Student achievement scores increased after students received intervention in reading fluency and comprehension from their classroom teachers. There was a statistically significant difference between the means for all groups tested ($p < .05$), providing evidence that the intervention was effective in producing higher student achievement. The strength of the effect size was large in five of the groups tested. The effect size attempts to provide a measure of practical significance to the overall results (Laerd Statistics, 2013a). The strength of the effect size for one of the groups (n=1) is considered to be of medium strength (d=.57) and the other five groups had a large effect size (d=1.04-1.99) (Laerd Statistics, 2013a; Tanner, 2012).

The posttest elicited a mean increase between 3.86 and 13.83 in the student Mondo assessment in the area of student achievement after the participants received the intervention from the instructional coach. This implies that intervention elicited a statistical significance in the area of student achievement.

Figure 13

Results From the Pretest/Posttest Student Data Organized by Teacher



These results indicate an overall increase in student achievement after the intervention teachers received with their instructional practice. Figure 13 depicts the growth of each classroom of student before and after their teacher received guidance and support from an instructional coach in the area of instructional practice.

It is important to make comparisons between overall growth in student data and the ranked value of the teacher from the Wilcoxon signed-rank test to see if there is a relationship. When interpreting and reporting the results of the Wilcoxon signed-rank test, the researcher should consider the positive or negative differences between the two related groups (Laerd Statistics, 2013b). The participants in the study were organized by ranked order (1-6), with 1 indicating the largest amount of difference in growth between the pretest and posttest. The student growth on the paired samples *t*-test was compared to the ranked difference from the instructional strategies portion of the Wilcoxon signed-rank test as shown in Table 3.

Macie ranked the highest of all the participants in growth from the Wilcoxon in the area of instructional strategies. Macie's students also showed the highest level of growth between the mean scores as indicated on the paired samples *t*-test (13.83). The results from both of these tests showed statistical significance ($p < .05$). Andrea and Avery had a tied score as indicated on the Wilcoxon signed-ranked test for growth in the area of efficacy in instructional strategies. It is also important to note Trisha was ranked last on the Wilcoxon signed-rank test but had the highest pretest efficacy score in the area of instructional strategies. Trisha also had the second highest student difference between the pretest and posttest scores as indicated by the paired samples *t*-test Macie's and Trisha's posttest scores were tied in the area of efficacy in instructional strategies.

In conclusion, the results of the paired samples *t*-test indicate statistically significant growth in all the participants' classrooms in the area of student achievement. This is an indication that the intervention of instructional coaching support offered to the teachers helped with the growth in student achievement. These results are discussed in further detail in Chapter V.

Chapter V

Conclusion

Introduction

Several years ago, the principal researcher was completing an administration internship and was invited to attend a Jim Knight training. Dr. Knight presented his research and knowledge about instructional coaching and the relevancy it had to school and district improvement. The passion with which he spoke of the need for teacher support in districts stirred the researcher's desire to think about better ways for schools to encourage and converse with the most vital and important individuals in our educational system: teachers. After several sessions of instructional coach training, the researcher began wondering why educators are often reluctant to change their instructional practice. Sitting beside and across from a room full of district personal, school administrators, and teacher leaders, the researcher decided to ask Dr. Knight a question: Why do teachers excuse poor instructional practice and fail to believe in the students they serve? The entire room fell silent. Jim Knight smiled while contemplating the question. With grace, the kind only Dr. Knight can give, he answered the question. First, he stated that educators have to respect each other as professionals. Teachers know a substantial amount about instruction, and it is important to honor that. Secondly, educators have to be willing to listen to one another and find better ways to collaborate in order to move the discussion forward towards bettering instructional practice.

In essence, it is important to consider the intricacies of educators and their teaching efficacy (Bandura, 1997; Woolfolk Hoy & Davis, 2006). Providing support to teachers is an important element for the successful implementation of instruction (Knight, 2007). Collective efficacy of a school system and influential school leadership must also have consideration if

stability and success are to be found within a school system (Goddard et al., 2000). The complexities of education and instructional practice lead to many questions about what will create justifiable change in school systems. The answers to these questions are obtainable but oftentimes seem too daunting for school districts and school leadership to successfully consider. However, realization can be found when school administrators build capacity through having a relationship with an instructional coach (Hall & Simeral, 2008). Together they find systems to surround teachers with, systems that create a supportive environment in which teachers can learn together and in which students can succeed.

This study addressed such systems of support drawing attention to the effects instructional coaching has on teacher efficacy, collective efficacy, and student achievement. This study drew attention to the relationship these topics have to one another and addresses a current gap in educational research connecting instructional coaching to teacher efficacy. This study focused on the components necessary to create a sustainable learning environment where teachers are surrounded by support, efficacy of teachers is considered, and students have an opportunity to achieve and be successful. During the study, teachers evaluated their personal teaching practices, reflected on their current school environment, and shared the most beneficial ways for them to learn in a professional development setting. The study drew attention to the nature of the professional relationship teachers had with their on-site instructional coach. Study participants were given time to rate their teaching efficacy in the areas of student engagement, instructional practice, and classroom management. The professional development teachers received from the instructional coach was labeled as an intervention in this study. This intervention was analyzed to see if teacher instruction changed and if the intervention had any effect on student achievement.

The questions investigated in this study were:

1. What kind of support can be provided to teachers so their self-efficacy is strengthened within an educational setting?
2. Are teacher efficacy beliefs affected when teachers receive ongoing professional development support from an instructional coach while implementing new learning?
3. Can teachers increase their levels of self-efficacy within their instructional practices?
4. Are high levels of teacher efficacy directly linked to student achievement?

This chapter speaks to what this study adds to the current research in the areas of teacher efficacy, collective efficacy, instructional coaching support, and student achievement by bringing important educational topics together to form new ideas that will further educational research. It also addresses some possible implications for further investigation and practice in these areas.

Summary of Results

Research Question #1. In this study, it was important to address the current levels of support provided to the participants at their school site. Establishing educational beliefs of the participants was also important so that the principle researcher could analyze perspectives and perceptions held within each participant. The principle researcher asked the participants to describe their thoughts and feelings about many different aspects of education both personal and professional. Interview questions asked the participants to describe their current philosophies on education, what type of professional development support was beneficial to them, what they liked about their school environment, and their current or future professional goals (see Appendix D). These questions were asked to help determine if the themes found during the interviews matched the concepts addressed in current research found in an efficacious school system.

These concepts were important to establish because of the nature and relationship between teacher efficacy, school leadership, and the need for instructional support within an efficacious system (Bandura, 1997). Establishing whether an efficacious system existed at the school site would help to determine if instructional coaching support could influence the self-efficacy of a teacher and further determine if this type of support belonged in an efficacious system.

The results of the study suggest the significance of surrounding teachers with support in order to strengthen their teaching efficacy. Teacher efficacy consists of the capability teachers believe they have to foster and grow student learning (Goddard et al., 2000). Attention is given towards instructional practice as teachers seek to become better practitioners of their craft (Bandura, 1997). A system of provision surrounds teachers, including opportunities for them to grow instructionally and professionally, and providing help for them when questions regarding implementation of new instruction arise (DuFour, 2004; Hall & Simeral, 2008; Knight, 2007; Lipton & Wellman, 2007). This supportive school environment interchanges with concepts established in an efficacious system (Bandura, 1997; Fullan et al., 2006). These are the common themes found during the interview process.

Theme one: Support from school leadership. Effective school leadership creates a foundation and vision for the school community (Marzano, 2003). School administrators search for strengths and talents within the system by encouraging those who possess leadership qualities to seek positions in the school (Hargreaves & Shirley, 2009). The study participants provided evidence of having such an administrator by stating that the school principal actively encouraged them to seek positions in the school that would utilize their unique qualities, abilities, and strengths. One participant indicated the trust she felt from the school administrator after being

encouraged to become a member of the leadership team. A school principal sharing leadership tasks and duties reflects the essence of a school that seeks an efficacious system (Bandura, 1997). School administrators who encourage teachers to seek positions of leadership provide a way for teachers to benefit the organization as a whole and operate collectively, rather than in isolation, as they contribute towards the greater good of the school system (Bandura, 1997).

A school administrator seeks to create an efficacious school by acting as an instructional leader within it (Bandura, 1997; Calik, Sezgin, Kavgaci, & Kilinc, 2012; DuFour et al., 2004). The school administrator described to the principal researcher the importance of her role as instructional leader. The school administrator indicated providing staff with a school atmosphere focused on the learning of teachers and acceptance of the students as part of the school family. The principle researcher observed the accessibility and approachability the school administrator had with the participants in this study. This was a further indication the participants could access and discuss with the school administrator issues or concerns they had about related school issues. Participants expressed that their principal established grade-levels teams that could work well together and benefit by providing support to one another. All participants acknowledged knowing the clear academic vision of their administrator and understood the need to work collaboratively to bring improvement to their instruction. All participants mentioned the unique ability the school administrator had to challenge them individually to seek professional opportunities. It was indicated throughout the interviews that the administrator was available to the participants when they needed support, and they trusted her professional guidance when new ideas were introduced to staff. In this particular study, the school administrator introduced the balanced literacy approach to the staff at the school site as a year-long goal for the teachers to

strive for. Support, trust, and belief by the participants in this study in the capabilities of the administrator provided avenues for the participants to study and implement new learning.

When the school environment creates experiences for teachers that will help nurture them professionally, individually, and collectively, the experiences generate resiliency while teachers search for best practices that will meet the needs of student learning (Bandura, 1997; Goddard et al., 2000; Undung & De Guzman, 2009, Zemelman, Daniels, & Hyde, 1998). Student learning becomes the mission of the school. This mission is furthered by shared values, colleagues who respect each other, and a culture in which the voices of teachers are heard and understood (DuFour, 2004). In an efficacious school, the overarching goal is to provide students with the support needed to find academic success, and this concept was consistent with the findings in this study.

Theme two: Support from an instructional coach. One of the many roles of an instructional coach is to provide professional development to staff that helps guide them with the implementation of new learning (Hall & Simeral, 2008; Knight, 2009). Guidance for implementation of new instructional strategies learned by teachers during professional development sessions provides a clear focus and direction for them to follow (Knight, 2007; Karimi, 2011). This was consistent with the findings in this study. Encouragement and individual support were offered to the teachers while they developed the best way to implement the curriculum within their classrooms. The teachers had the opportunity to observe their own students' learning as they watched a lesson being taught by the instructional coach.

Debriefing time between the instructional coach and the participants in the study provided room for discussion and time for teachers to ask about the implementation of Mondo curriculum. Research indicates that debriefing with an instructional coach after the instructional

coach provides support allows teachers the opportunity to deepen understanding of their instructional practice (Danielson, 2007; Daudelin & Hall, 1997; Knight, 2007). Research also indicates a close relationship between teachers' skill, knowledge, and instructional practice and the academic success of students (Woolfolk Hoy & Davis, 2006). This suggests that what teachers know about instruction is a critical component of what students learn (Bandura, 1997; Eisenberger et al., 2005; Elliott et al., 2010; Zimmerman et al., 1996). An instructional coach helps teachers improve what they know about instructional practice.

Effective instructional coaching starts with the creation of a trusting professional relationship between a teacher and a coach (Knight, 2007). The focus of this relationship is to improve the teacher's instructional practice, which will in turn create strength within the teacher (Knight, 2009; Shaw, 2009). A good teacher and coach partnership develops from a mutual trust, respect, and understanding (Hall & Simeral, 2008; Van Cleave & Dailey, 2007). Evidence of this partnership was shown to exist between the participants in this study and the instructional coach. Participants indicated the trust they felt towards the instructional coach and her knowledge and expertise in the areas of language arts instruction. Five of the participants indicated they actively sought guidance and feedback from the instructional coach during lesson planning and lesson delivery. Collaboration happened inside the participants' classrooms as the instructional coach modeled lessons and the coach and teachers talked together through the process of implementing the new learning (Mondo curriculum, word study, and unit design using CCSS).

Reflecting on differing types of support given to participants in this study, the instructional coach indicated she supported teachers in both formal and informal settings. She supported teachers formally in professional development or PLC meetings, and informally when they sought her advice in the hallway or discussed a previously taught lesson.

One participant who responded to certain aspects of the partnership approach to coaching but not to others was Trisha. She indicated in the interviews she appreciated the hands-on approach to professional development provided by the instructional coach but did not show evidence of responsiveness to other aspects of the intervention such as discussions with the instructional coach or directly seeking support from the instructional coach. Through member-checking, this participant indicated agreement with the four themes found by the principle researcher as indications of the support found at the school site. However, little evidence from the interviews specified the instructional coach provided support in any other capacity beyond the professional development setting for this particular participant.

Theme three: Support found in a PLC. When educational leaders build capacity by providing opportunities for teachers to learn new instructional strategies and giving teachers occasions to share these strategies, teachers gain the stability and strength needed to move towards successful implementation of new learning (DuFour, 2004). Participants indicated that their PLC environment included opportunities to discuss instructional practice, share ideas about instruction, and recognize a common vision among staff members. Scheduled, weekly collaboration sessions consisted of opportunities for participants to openly share their successes, failures, and questions regarding the implementation of new language arts curriculum and standards. Studies about the power of collegial relationships show that an environment for both strong teacher and strong collective efficacy is fostered when teachers engage in ongoing, professionally rich opportunities in which school staff are able to develop professional relationships with colleagues (Bandura, 1997; Goddard et al., 2000; Lipton & Wellman, 2007).

Another indication that participants experienced an effective PLC environment was that they practiced transparency within instructional practices (Daudelin & Hall; 1997; DuFour et al,

2004). Participants were involved in walk-throughs of colleagues' classrooms while implementation of Mondo curriculum occurred. Concerned with using the best practices of instruction to implement the new curriculum, participants, along with their colleagues, were able to discuss and view the success of students during the observed lessons and provide feedback on a collective level during weekly team and PLC meetings. This was a further indication of opportunities provided to the participants by the school administrator and the instructional coach to help support the system of learning at the school site. When educators collectively contribute to the instructional integrity of a school, it provides strength to teachers who are actively seeking betterment within their personal instructional efficacy (Bandura, 1997; DuFour et al., 2004).

Theme four: Instructional support found within grade-level teams. Participants consistently indicated that they found instructional strength when alignment with other team members materialized through collaboration. They also reported previous experiences of frustration and a sense of helplessness when grade-level team members distrusted their professional judgments about how best to instruct their students. The need to find alignment with team members was a clear indication to the participants that collaboration was important when student success mattered. Finding association within a school system is a consistent element found in collective efficacy (Goddard et al., 2000). The participants relied on each other for support in the areas of instructional practice and indicated the need to collaborate before, during, and after implementation of instruction. This showed more evidence that collective efficacy was happening with this school community (Elliot, 2010; Goddard et al., 2000).

The themes found in this portion of the research identify many components found in an efficacious school system, a system focused on providing support to teachers (Bandura, 1997). In this study, the principle researcher found teachers who felt valued and supported by the school

administrator, instructional coach, PLC, and grade-level colleagues. Another important aspect the principle researcher needed to identify was whether the school administrator exhibited to the participants the belief of shared leadership. Shared leadership is a key component not only found in an efficacious system but also found in a successful partnership between a school administrator and the instructional coach (Bandura, 1997; Hall & Simeral, 2008; Killion, 2009). The principal researcher found in several instances, the participants mentioned both the instructional coach and the school administrator in the same sentence when describing the leadership provided to the school. It was important to show the connections between shared leadership, an efficacious school system, and instructional coaching. In this study, instructional coaching helped move the foundations of an efficacious system forward towards the implementation of instructional strategies needed to support both teachers instructionally and students academically (Bandura, 1997; Hall & Simeral, 2008). Demonstrating the connections between shared leadership, an efficacious school system, and instructional coaching helped to bring a deeper understanding of how these ideas can work together to strengthen a school-wide system which supports teachers and their efficacy.

Research Question #2. Efficacy within a teacher consists of a belief system focused in instructional practices (Bandura, 1997). A strong teacher efficacy is reflected by teachers who are open to new ideas, have a positive teaching attitude, spend time developing great classroom instruction, find ways to enhance their classroom instruction, and focus on creating exemplary learning experiences for students (Bandura, 1997; Brown, 2012; Elliot et al., 2010; Ozder, 2011; Zimmerman & Cleary, 2006).

A large component of a school system dedicated to enhancing teacher, collective, and student efficacy is leadership that provides rigorous instructional support to teachers (Bandura,

1997). Currently missing in educational research is the potential influence instructional coaching may have on teacher efficacy. If an efficacious school system includes instructional support, the question needs to be asked if instructional coaching fits the definition of rigorous instructional support. Shared leadership continues to be a key component in how rigorous instructional support is defined and how it is implemented (Bandura, 1997).

Participants in this study were asked to reflect on the instructional support they received from the instructional coach during the 10-week intervention provided to them in this study. Questions serve as the most basic and powerful tool to use during the reflection process, and participants were asked to write a reflection of their experiences working with the instructional coach (Daudelin, 1996). Reflections on the intervention the participants received from the instructional coach gave further insight as to whether the intervention held the components teachers needed to strengthen their teaching efficacy, especially in the area of instructional strategies. The reflection process gave the participants an opportunity to indicate if their teacher efficacy was affected after the intervention had occurred. Through the reflective process, the participants articulated thoughts around three themes: Collaboration with the instructional coach helped participants solve instructional problems, new ideas learned from the coach were beneficial to instructional practice, and the instructional coach helped teachers implement new knowledge.

Collaboration with the instructional coach helped participants solve instructional problems. Participants gained instructional knowledge from professional development support provided by the instructional coach. Implementation of the balanced literacy approach, a goal of the teachers at the school site, moved forward with the support from the instructional coach. This result showed consistency with the research citing coaching as a tool to provide support to

teachers through the implementation of new learning (Knight, 2007). This support benefits teachers by actively encouraging them to think about the instructional needs of students and brainstorm the best way to support classroom instruction and by moving new instructional learning from the initial professional development session into the area of instructional practice (Killon, 2009; Knight, 2007).

High stakes for student learning directs teachers to quickly problem solve by meeting the instructional needs of their students (Bandura, 1997; Bean & Deford, 2012; DuFour, 2004; Woolfolk Hoy & Davis, 2006). In an example given by participants, a grade-level team needed help with the implementation of guided reading groups using the Mondo curriculum. This particular situation was a struggle for these participants who were trying to find the best solution to serve their students. They immediately sought guidance from the instructional coach to help them with the situation. Both the team and the instructional coach indicated the need to try grouping students in various ways before making a decision as a team how to best serve their students' needs. This is an example of how instructional coaching support can meet the efficacy desires of teachers by providing discussion and action ideas to meet the academic needs of students. Teacher efficacy seeks to understand and develop solutions for students, making the students' academic success the forefront of what teachers pursue (Bandura, 1997; Morris, 2010).

New ideas learned were beneficial to instructional practice. Participants indicated the instructional coach provided effective professional development sessions by including hands-on learning experiences. These hands-on learning experiences included learning word study techniques, understanding a balanced literacy approach to English language arts instruction, learning how to implement Mondo instruction, and actively providing feedback to colleagues in the building while learning to implement Mondo curriculum. The participants indicated that

these sessions were beneficial because they provided knowledge the teachers needed to help them directly implement the new strategies within their classroom settings. Giving teachers the opportunity to learn instructional strategies using a hands-on learning approach enhanced the understanding of the new learning and encouraged the implementation of the new strategies. Hands-on learning positioned the focus on teachers' learning the actual techniques students would be required to develop in the classroom. Participants expressed this approach to their understanding of the new strategies provided them the opportunity to experience the learning through the eyes of their students. This was an indication the instructional coaching support benefited the teaching efficacy of the participants by providing for them instructional learning to best suit the participants' learning styles and by potentially providing more ample occasions for the learning to penetrate the future instruction the participants would deliver to their students (Knight, 2007). The instructional coach considered the ways her staff learned best and provided appropriate experiences for them so the professional development learning would not be lost. Participants shared throughout the qualitative portions of this research the different learning experiences delivered to them. This gave the participants the chance to experience professional development sessions to meet their instructional needs and the opportunity to invest in the process of learning (Tesfaw & Hofman, 2012).

All participants stated they sought guidance from the instructional coach for full implementation of new teaching practices in the area of language arts. Participants indicated the reliability and expertise of the instructional coach in the area of language arts instruction. Participants mentioned the instructional coach had expertise in Mondo curriculum, word study, and unit design. Participants in this study sought direction from the instructional coach while learning how best to move forward with teaching practices. These opportunities can provide

focus to the instructional delivery of a lesson while teachers find active ways to move the learning from a professional development setting into the classroom (DuFour et al., 2004; Killion, 2006). Teachers seeking opportunities to benefit their classroom instruction directly ties to the ideas found in increasing teacher efficacy in instructional practice (Bandura, 1997).

The instructional coach helped teachers implement new knowledge. Teachers who seek out instructional support for their individual teaching practices build instructional capacity, which is strengthened within a collective and interactive structure (Bandura, 1997; Bean & DeFord, 2012; Shaw, 2009). Participants in the study stated they could rely on the instructional coach to give supportive feedback on lessons presented using the new Mondo curriculum. Working with teachers' agendas, acting as a thoughtful peer by giving meaningful feedback, and becoming an expert in specific areas of content are some of the many tasks instructional coaches are responsible for (Bean & DeFord, 2012; Killion, 2006; Knight, 2007; Shaw, 2009).

All participants indicated feeling more self-assurance in their instruction after pursuing direction from the instructional coach. One participant indicated she felt she could conquer and implement any new instructional learning after meeting with the instructional coach. She felt the collaboration process with the instructional coach brought insight into her instructional practice she may not have had otherwise. When teachers develop a partnership with an instructional coach, one that consists of focusing on classroom instruction and the betterment of teaching practice, it provides stability needed for teachers to pursue new learning strategies and techniques (Knight, 2007). The partnership between the instructional coach and the teacher was strengthened by seeking to find best practices in instruction and finding purpose towards increasing teacher efficacy.

Teachers found instructional support in certain content areas but not in others. Laura indicated she found instructional support from the instructional coach in many areas of English language arts, but she could not rely on the instructional coach for support in the area of mathematics. Laura felt she was more capable of finding her own solutions to mathematical content issues, and indicated the instructional coach had revealed through conversations her discomfort in providing support to teachers in the area of mathematical content. The principle researcher also had conversations with the instructional coach in which the instructional coach indicated that she felt she was adequately able to support teachers with English language arts instruction but felt she lacked instructional knowledge in the content area of mathematics. This is an indication of how the partnership approach to instructional coaching failed to provide support to a teacher in this specific content area. The notion of an efficacious teacher is one who seeks out instructional answers to better instructional practice (Bandura, 1997). In this instance, the participant at some point needed instructional guidance in the area of mathematical content. While this participant benefitted from having a partnership with the instructional coach in the area of language arts, the participant had to rely on her own instructional knowledge in the area of mathematical practices.

The role of an instructional coach consists of listening to the needs of teachers and helping them to create a plan so their professional goals are realized (Knight, 2007). It also consists of helping teachers to focus on how to instruct students successfully, not necessarily focusing on the specifics of the content being addressed (Killion, 2009). Addressing Laura's content needs should have been focused on the instructional implementation of the content, not necessarily on the content itself. The coach could have chosen to turn the conversation toward instructional practice of mathematical content or found other ways to support the teacher by

providing content support from other resources. Unfortunately, in this case, the participant felt unsupported by the instructional coach when a way of supporting the professional needs of the participant should have been realized (Killion, 2009).

The implications of this piece of research cause questions to arise around the effectiveness of an instructional coach and their strengths in content areas or their knowledge about specific instructional topics. While research on the topic of instructional coaching focuses on the delivery of instruction, not necessarily on the delivery of specific content, it is a topic worth addressing (Killion, 2009; Knight, 2009). When the instructional coach indicates to teachers the lack of knowledge in a specific content area, teachers can begin to feel they cannot find instructional support in that specific area.

Instructional coaching techniques did not provide support to everyone. Trisha's reflection sheet revealed little to no indication the intervention from the instructional coach benefited her instructional practice. The principle researcher went back and included some member checking with this particular participant in hopes of finding more answers as to why this intervention did not benefit her. Member checking revealed little to no new insight to the principle researcher. There are numerous factors that could have contributed to this response from the participant. These factors could have included the lack of partnership this participant had with the instructional coach, the fact that she was new to teaching fourth grade, or a struggle to be reflective on her instructional practices and new learning. This participant may have also felt she had nothing new to gain from the instructional coach beyond a group professional development session.

Research Question #3. Foundationally, teacher efficacy is the competency a teacher believes he or she has in the elements of instructional practice (Woolfolk Hoy & Davis, 2009).

Strong efficacious belief in a teacher is demonstrated through efforts such as carefully structuring instructional design, believing all students will learn, even the students most difficult to reach, and setting high expectations for all students (Bandura, 1997; Woolfolk Hoy & Davis, 2009). Teacher efficacy can increase within instructional practice if teachers serve students in an atmosphere within a school setting dedicated to teachers improving instructional practice. Teachers with a sense of strong instructional efficacy show a deep-rooted commitment to teaching and devote much classroom time to the academic activities inside the classroom setting while seeking answers for the betterment of student learning (Bandura, 1997).

Instructional coaching shows the potential of directly supporting the instructional efficacy of a teacher. Whereas teacher efficacy focuses on the belief system held within a teacher, instructional coaching seeks to help teachers find better and more refined ways of reaching students as the teachers become better practitioners of their craft (Knight, 2007; Woolfolk Hoy & Davis, 2006). By bringing together current research, this study attempts to show the effects of instructional coaching on teachers' instructional efficacy to bring attention to the potential relationship instructional coaching may have with the efficacy of a teacher. This study focuses on the relationship instructional coaching has with teacher efficacy where there remains a current gap in existing research.

Used to measure the effects of instructional coaching on teacher efficacy was the Teachers' Sense of Efficacy Scale (TSES) designed by researchers in the field of teacher and collective efficacy (Tschannen-Moran & Woolfolk Hoy, 2001). The results are reported using areas of descriptive statistics as reported by the Tschannen-Moran and Woolfolk Hoy scoring guide (2001). A Wilcoxon signed-rank test was used to determine the individual effects

instructional coaching had on the three areas indicated on the TSES: student engagement, instructional strategies, and classroom management.

The descriptive statistics were an indication of the efficacy participants had during the duration of the study. For overall efficacy, results indicated a pretest mean of 7.36 and a posttest mean of 7.90. These results are consistent with means between 7.0 and 8.0 reported from the TSES in other related studies (Ozder, 2011; Sari, Celikoz, & Secer; 2009; Tschannen-Moran & Woolfolk Hoy, 2001). It is important to make comparisons to the efficacy the participants in this study had with other teachers who had participated in efficacy related studies to see if efficacy levels were abnormally high or low. In this case, the participants pre-efficacy measured comparatively to those participants in similar studies. For the three categories listed on the TSES, the results showed the highest pretest mean in the area of classroom management efficacy ($M = 7.84$) and the lowest pretest mean in the area of instructional strategies efficacy ($M = 7.10$). Other similar studies focused on results from the TSES showed the largest mean score in the area of classroom management efficacy (Sari, Celikoz, & Secer, 2009). Posttest scores from this study indicated the largest mean increase to be in the area of instructional strategies efficacy (.63). Because the intervention in this study focused on providing support to teachers with their instructional practice, it is no surprise the mean increase was largest in this area.

The results of the Wilcoxon signed-ranked test, separated by the three areas of efficacy, showed no statistical significance in the areas of student engagement efficacy or classroom management efficacy. These results could be further debated as to why these two areas were not affected by the intervention while the instructional efficacy was affected. What seems more relevant in this study is to discuss the outcomes of the efficacy in instructional practice. The intent of the intervention was to help teachers implement new instructional learning into their

classrooms. The evidence from the reflection sheet from the participants and the instructional coach indicate this was the area specifically focused on in this study. There was no indication from the reflection sheet or the reflection from the instructional coach that the areas of classroom management or engagement were areas discussed in this study. The Wilcoxon signed-ranked test demonstrated a statistical significance in the area of instructional strategies efficacy ($p < .05$), indicating that the intervention may have affected this area (Laerd Statistics, 2013b; Tanner, 2012).

The qualitative responses on the reflection sheet are a further indication the intervention of instructional coaching support influenced the teacher efficacy of the participants. Hillary expressed her thoughts on the influence the intervention had on her as a teacher by stating, “I feel more confident in my instruction with Mondo. If I have questions, the instructional coach gives me clear, honest answers and tells me what my instruction looks like from an outside point of view.” Hillary depended on the honest feedback the instructional coach gave to her to better her instruction to students.

Macie also expressed the effectiveness the intervention had on her professional practice by stating,

> (The instructional coach) has helped me a great deal this year. I feel like I can tackle any problem through collaboration and brainstorming with her. She helps me look at problems in different ways and helps me to find solutions that meet the needs of my students.

This statement is a further indication the intervention helped the participants to improve their instructional efficacy and depended on the instructional coach to guide them through this process. It is also important to note, in this case, Macie had the highest increase in efficacy in

instructional strategies (+15 point increase) of the participants in the study. Relationship and partnership with the instructional coach helped to increase her efficacy showing evidence for the appropriateness and effectiveness of instructional coaching in an efficacious system.

The question of whether teachers can increase their levels of self-efficacy within their instructional practice seems to have been answered by the results from the Wilcoxon signed-ranked test used to compare the pretest and posttest results from the TSES and the results from the reflection sheets. However, it is important to take a closer look at the intervention–in this case instructional coaching–to see if the intervention influenced this specific area of efficacy for these participants.

It is difficult to separate the areas in which instructional coaching and teacher efficacy affect the classroom. Both specifically draw focus to the instruction of the classroom teacher (Bandura, 1997; Cornett & Knight, 2009; Elliot et al., 2010; Goddard et al., 2000; Hall & Simeral, 2008; Killion, 2009; Shaw, 2009). Both stress the importance of providing meaningful classroom instruction to students (Killion, 2009; Marzano et. al., 2003; Tschannen-Moran & Barr, 2004; Swackhamer et al., 2009). Instructional coaching and teacher efficacy also both emphasize the impact teachers have on the students they serve (Hall & Simeral, 2008; Kise, 2009; Knight, 2011; Tschannen-Moran & Barr, 2004; Woolfolk-Hoy & Davis, 2006; Zimerman & Cleary, 2006).

Instructional coaching support for teachers places emphasis on the instructional practice of a teacher (Knight, 2007). Participants showed evidence throughout the research of actively partnering with the coach and accepting her support during the intervention portion of this study. This proved to be effective in improving instructional practice as indicated by the results from both the qualitative and quantitative portions of this study. The results from the Wilcoxon

signed-ranked test in the area of teacher efficacy is a further indication the participants in this study could increase their efficacy in instructional practice after participating in a 10-week intervention with an instructional coach.

An argument could be made about the lack of influence the intervention had on the other two areas indicated by the TSES as shown by a lack of statistical significance for the results in the areas of efficacy in engagement and efficacy in classroom management. In a highly engaged classroom, the teacher strives to believe all students can and will learn and provides opportunities for every student to be successful (Marzano et al., 2011). These are the same practices of an efficacious teacher (Bandura, 1997; Elliot, 2010; Skaalvik & Skaalvik, 2009). A closer look at the pretest scores in these two areas reveals that the participants, overall, had a high sense of efficacy in these areas before the intervention, especially in the area of classroom management, and so had little potential for growth.

It could also be argued that the intervention in this study dealt with increasing the knowledge of instructional practice, rather than with enhancing the areas of student engagement or classroom management. While those two areas remain important to consider, the focus of this study was on teacher efficacy in the specific area of instructional practice. The Wilcoxon signed-rank test results indicate the intervention did have influence on teacher efficacy within the area of instructional practice. The results from the interviews and the reflection sheet indicated five of the participants actively sought answers to better their instructional practice by accessing the support from the instructional coach. All six participants indicated benefiting from new learning provided by the instructional coach through on-site professional development sessions. The instructional coach developed these sessions to appropriate the participants' learning styles (hands-on professional development).

Beyond the professional development, five of the participants indicated that they actively sought personal instructional support from the instructional coach. This evidence coincides with the elements found in a teacher with strong instructional efficacy (Bandura, 1997). Efficacious teachers seek to continuously improve in the instruction they provide to students. In this case, they sought solutions through partnership with their instructional coach. These participants also noted the different ways support was provided to them and indicated that the instructional support fit their individual needs and benefited them specifically.

The instructional coach not only provided unique individual support, she also provided support to grade-level teams. This was an indication of how the instructional support provided by the instructional coach provided support within the area of collective efficacy. The evidence found in the qualitative portions of the research helped to strengthen the results found in the TSES. Efficacious teachers seek inspiration to better their instructional practice (Woolfolk-Hoy & Davis, 2006). In this case, the participants sought out the instructional coach for guidance through the process of bettering instructional practice.

It is important to note one participant who did not seem to respond to specific areas the intervention addressed. Trisha indicated on the reflection sheet she saw the needs of her students being met and believed in the vision of the school to provide support to students in the area of English language arts. Trisha indicated during the interview she benefited from the hands-on professional development provided by the instructional coach. However, there was no indication that she sought individual professional instructional guidance from the instructional coach or individualized instructional support was something she had benefitted from.

Trisha also showed a decline in efficacy in all three areas on the TSES and had a negative score (-2) in the area of efficacy in instructional strategies. While this might seem to indicate a

lack of teacher efficacy, the results indicate that is not the case. Trisha's results initially showed one of the highest levels of efficacy of all the participants in the area of instructional strategies and it remained the highest score on the posttest. Many factors could have influenced Trisha's scores as discussed in the previous section. One possible conclusion can be drawn from discussing Trisha's results. Trisha did not indicate finding benefit from the intervention provided by the instructional coach as indicated both on the reflection sheet and the TSES. Certain components of the partnership approach to coaching, for whatever reason, did not benefit this particular participant.

The ineffectiveness of instructional coaching in this instance warrants discussion. While the other five participants responded well to this intervention and benefited from it based on results from both the qualitative and quantitative results of this study, Trisha did not seem to directly benefit from portions of this type of support. Research indicates effective instructional coaching relationships develop from mutual trust and respect (Knight, 2007). Instructional coaching and teacher relationships can take time to develop. It might be suggested that Trisha could benefit from a different type of coaching which would have met her needs as a teacher. A suggestion for differentiated coaching, a type of coaching that takes into consideration the personality traits of the teacher to suit individual learning styles, may have been a better fit for this particular teacher (Kise, 2009).

Trisha had difficulty identifying her personal teaching philosophy during the interview and it may have been beneficial for her to spend time with an instructional coach to see her educational philosophy realized. Through realization of her teaching philosophy, Trisha could have found her purpose for teaching, a key component needed for solid instructional practice (Fullan et al, 2006). Whatever the case may be, Trisha did not respond to the partnership

approach to coaching in the same manner the other participants in the study did, and she was the only participant showing a decrease in efficacy within the area of instructional practice.

Instructional support influencing student growth and achievement. In the area of student achievement, it is important to consider what causes academic growth. Question number four of this study addressed such effects. Research has indicated one of the most important factors for student achievement, especially in elementary school, is the classroom teacher (Kim & Park, 2009; Marzano, 2003; Marzano et al., 2011; Pajares, 2009). The level of teacher efficacy an educator possesses has a large amount of influence on the academic achievement of students (Bandura, 1997; Warren, 2010; Woolfolk Hoy & Davis, 2006).

In this portion of the research, a paired samples *t*-test was used to compare student pretest and posttest results from the Mondo assessments to indicate whether high levels of teacher efficacy influenced student achievement. The results from the paired samples *t*-test indicated growth in every classroom tested when the mean of the pretest was compared to the mean of the posttest (Elliot & Woodward, 2007). A paired *t*-test was performed to ascertain whether the coaching intervention the teachers received benefited the instruction students received (Elliot & Woodward, 2007). The results of the *t*-test indicated that there was statistically significant positive growth ($p < .05$) between the pretest and posttest. This is a further demonstration of the impact teacher efficacy and collective efficacy can have on the achievement of students (Bandura, 1997; Goddard et al., 2000; Tschannen-Moran et al., 2004; Woolfolk Hoy et al., 2006). Teachers who focus on creating powerful learning experiences for students while meeting the needs of students can find improvement when working with an instructional coach.

It is important to consider the results of each individual classroom to determine how effective the intervention was on the instruction students received. Because it has already been

established that results from each classroom showed statistical significance ($p < .05$), it is important to look at the pretest and posttest mean of each classroom and the growth each participant's classroom of students had (see Table 3).

The pretest mean of Macie's student data deserves discussion. The mean pretest score was 79.74 (M = 79.74), 21 points lower than that of any other classroom. Determining why this particular teacher started with such low scores defines the need for further investigation. Examination of the pretest scores indicated the need to compare some demographic information within the fourth-grade-level grouping of students. Macie had five special education students, four students labeled as English language learners, and five students going through the intervention process at the school site to determine if more strategic instruction was needed for these students. In comparison to the other fourth-grade classrooms, Trisha had one special education student, two students labeled as English language learners, and no students going through the intervention process. Hillary had two special education students, one labeled as an English language learner, and two students going through the intervention process.

When the researcher asked why this particular participant had the lowest scoring grouping of students, it was explained that the students were divided equally according to academic needs between the three fourth-grade classrooms before the previous school year ended. However, when school began the following year, due to the high mobility of the students serviced at this school location, several of the students placed in these three classrooms had moved, causing an uneven placement of students with high academic needs. These demographic understandings s allowed for a clear pathway for further investigation into the intervention's effect on teacher efficacy and how the level of efficacy affected student achievement.

Another important statistical piece from the student data that deserves a closer examination is the high standard deviation (SD = 20.60) score Hillary's student data produced (Tanner, 2012). This score was 12 points higher than the next highest score from the five classrooms. The data from Hillary's class showed a large gap between the students with the lowest grouping of scores and the students with the highest grouping of scores (Tanner, 2012). The classroom teacher described her students as either lower achieving students or higher achieving students and not many she would consider to be middle of the road.

Another phenomenon indicated in the student data that deserves further investigation is the lower achievement growth between the fourth-grade and fifth-grade classes. The fourth-grade classes showed a mean difference on the paired *t*-test between 11.75-13.83, and the fifth-grade classes showed a mean difference on the paired *t*-test between 3.86-7.71. It is important to note the Mondo assessments used a combination of scores from an oral reading fluency (running record) and a comprehension passage to produce an overall reading score (Crevola & Vineis, 2008). Research in the area of oral reading fluency indicates fourth-grade students should increase their oral reading score by an average of .85-1.5 words per week as opposed to fifth-grade students who should, on average, gain .5 words per week (Fuchs, Fuchs, Hosp, & Jenkins, 2001). Academic growth in the area of reading fluency averages higher for fourth-graders than it does for fifth-graders. Since the oral reading fluency was part of the overall Mondo score, it would make sense that fifth-grade students showed less overall growth than the fourth-grade students on the Mondo assessment. The results from this study are aligned with this piece of important research.

Answering the questions related to the results in this study allows for possible implications to be drawn by comparing teacher efficacy results with the results from the student

data. Careful examination of these results and how they relate to each another generate implications that high levels of teacher efficacy directly link to student achievement. Previous research indicates a strong relationship between teacher efficacy and student achievement (Bandura, 1997; Woolfolk Hoy & Davis, 2009). Teachers with a strong sense of efficacy possess robust content and pedagogical knowledge while continuing to find better ways of instructing students (Woolfolk Hoy & Davis, 2009). The participants in this study showed dedication to their students through their desire to learn new teaching strategies in the area of English language arts and collaborating with the principal, instructional coach, and each other for implementation of new learning into their classrooms.

A closer look at the comparisons between the growth shown on the pretest and posttest teacher results on the Wilcoxon sign-ranked test and the growth in student achievement on the paired samples *t*-test indicates that high teacher efficacy equals high student growth in achievement. Table 4 helps with the understanding of these results.

Table 4

Comparison Chart: Teacher/Student

Participant	Pretest Efficacy Score	Posttest Efficacy Score	Difference Reported in the Wilcoxon	Ranked Value Reported in the Wilcoxon	Difference of Student Pre and Posttest Mean as Indicated on the Paired Samples *t*-test
Macie	51	66	+15	(1)	13.83
Laura	57	63	+6	(2)	7.71
Andrea	53	57	+4	(3)	3.86
Avery	47	51	+4	(3)	6.72
Hillary	65	68	+3	(4)	11.75
Trisha	68	66	-2	(5)	13.00

These results show the participant with the highest level of growth in efficacy in instructional strategies and ranked number 1 on the Wilcoxon also had the highest growth in student achievement in her classroom. The three participants with posttest efficacy scores 65 or higher had the largest growth in student achievement. It is also important to consider that Andrea and Avery's scores for efficacy in instructional strategies showed the lowest posttest efficacy, but both ranked +4 on the Wilcoxon overall. These two participants' classrooms also showed the lowest amount of overall student growth. An important factor to consider is the amount of time Andrea (3 years) and Avery (2 years) had been in the teaching profession. Typically, teachers new to the educational profession will show lower scores in efficacy when compared to more experienced teachers (Ozder, 2011; Sari et al., 2009), which is consistent with the current results from this study.

Even with these results, it is difficult to determine if teacher efficacy directly impacted the growth students made during the 10-week intervention in this study. Students can receive academic support from many different areas including parents, the community, and interactions from other individuals such as peers and classified school professionals that might have influence on their achievement (Caprara, Scabini, & Regalia, 2009). In essence, students can be influenced by many different things, and it is very difficult to determine specifically how these students were influenced. However, research makes a good argument that a strong sense of efficacy, such as the participants in this study were indicated to have, can influence and benefit the achievement of students (Caprara et al., 2009; Woolfolk Hoy and & Davis, 2009).

It can be stated from the evidence found in the teacher interviews, reflection sheets, and TSES that the instruction of teachers benefited from the intervention to help strengthen their knowledge in instructional practice. Specifically, they were provided support with the

implementation of the Mondo curriculum and other areas of instruction in English language arts. The growth in student achievement is the final piece of this research study to strengthen this argument. All student results indicated *p* values less than .05, strengthening the argument that these students were influenced by the instructional coaching support their teachers were receiving. The professional development support provided by the instructional coach for implementation of Mondo curriculum helped to influence the way teachers successfully implemented this curriculum into classrooms. The successful implementation of this curriculum is indicated by the growth in student scores between the pretest and posttest. This aligns with Jim Knight's (2007) initial argument of the importance of providing teachers with on-site professional development support to help increase the likelihood that new professional learning will be implemented, instead of providing only occasional outside professional development support.

Conclusion

When looking at an efficacious school system and the layers of support this system requires, one can easily see the place instructional coaching has within this system. Supporting teachers instructionally requires time. Teachers need time to reflect on instruction so student learning remains the focus of school improvement. Conversations about better instruction and student learning should include the topic of utilizing an instructional coach who can help guide teacher reflection, and helping teachers become better practitioners of their craft.

Evidence of an efficacious system of support provided to the participants was shown throughout the interview process. Participants acknowledged the need for strong, focused leadership who are willing to share leadership roles with them to build instructional capacity within the school. The participants said their school administrator encouraged them to seek

professional opportunities that went beyond the time spent in the classroom. Relationship with the school administrator was a key component to an overall feeling of support these participants spoke freely about during the interview process.

Instructional coaching support was evident as a needed component to increase teacher efficacy within an educational setting. Efficacious teachers seek better ways to instruct students well. The participants in this study indicated in the interviews, reflection sheet, and response to the instructional coaching intervention through the TSES the benefits of having a site-based instructional coach. They indicated better instruction happened in their classroom by having instructional coaching support. Relationship with the coach was a key component when making instructional decisions that would benefit the students these participants served. Easy access to instructional coaching support provided participants resources to quickly and conveniently answer their instructional inquires.

Participants defined the desire to find support from the instructional coach at the school site. The participants appreciated easy access to professional development sessions created for them by the instructional coach to meet their individual needs as learners. This professional development support allowed for implementation of new instructional learning without hesitation. The instructional coach provided her services by demonstrating lessons inside the participants' classrooms and debriefing with the participants after these demonstrations took place. The instructional coach also acknowledged the different types of support teachers needed, whether it be through formal sessions such as professional development settings, or informal ones such as hallway conversations about instructional practice. Sometimes, teachers simply needed feedback from the coach on lessons taught.

Timely implementation of Mondo curriculum happened, resulting in growth in student achievement, even, in some cases, for those students who were low achieving. Every classroom showed a statistical significance in growth, indicating the support given to the participants helped with the implementation of the new curriculum.

This study indicated the value of having an on-site instructional coach to help meet the instructional needs of teachers, especially efficacious teachers seeking to improve their instructional practices. For this support to be effective, an efficacious system of support led by the school principal needs to be in place. Instructional coaching support provides consistent ongoing opportunities for teachers to become better practitioners of their craft. Evidence from this study shows the desire teachers have in an efficacious system to improve their instruction and provide more opportunities for students to learn. Efficacious teachers seek to find answers to instructional issues, and this study demonstrated the need participants had for an instructional coach to help them do just that.

This study also showed the importance of providing onsite instructional support to teachers when they implement new curriculum and new instructional strategies within a specific content area. Teachers in this study exhibited evidence of the need to have ongoing support with implementation of new instructional strategies in a variety of ways. Some of this evidence was specific to the instructional needs of the participant. Other evidence showed the response to new learning was best when learning occurred in a group setting with follow-up support from the instructional coach.

Other responses to instructional coaching support in this study indicated the partnership approach may not fit the needs of all teachers involved in an efficacious school system. Some teachers may respond better to support when first learning new strategies but do not see the need

to continue receiving support if students are responding well and indicate to the teacher they are learning.

Efficacy beliefs were affected by the support these participants had from the instructional coach. This was evident throughout the reflection sheets when the participants expressed their gratitude for the support received from the instructional coach. Trust in the knowledge the instructional coach had in specific content areas was an important factor when the participants expressed their need for support. Participants expressed the gratitude they felt towards the instructional coach for being a system of support when it came to the area of English language arts. The participants leaned on the expertise of the instructional coach by seeking guidance and direction within their instructional practice.

The results of this study could benefit many individuals involved in the decision making process for both districts and schools. Clearly, there is evidence that schools and districts need to invest in the instructional support of their teachers. Districts need to understand the outstanding benefits of developing shared leadership systems that include instructional coaches. There is also a deep need for districts to recognize the effects of an efficacious school system and the role instructional coaches play within this system. Providing teachers with better access to individuals with instructional knowledge can benefit the efficacy of teachers, and in turn, provide enhanced academic instruction to students.

The results from this study indicate the place for instructional coaching in supporting an efficacious system. Instructional coaching provides stability with implementation of new instructional strategies, increases the likelihood teachers will implement new learning, and provides sustainable support to teachers that they can rely on (Bean & DeFord, 2012; Hall & Simeral, 2008; Knight, 2007; Lipton & Wellman, 2007). This provision can be individualized to

help support the instructional efficacy of specific teachers or can benefit collective efficacy through instructional support to the school system as a whole. Evidence of a statistically significant increase in teacher efficacy using the TSES is further indication of the importance of instructional coaching support when new instructional strategies are being implemented. If teachers are provided with instructional assistance throughout the process of implementing new instructional strategies, new learning for students may be more likely to happen.

Limitations of Study

There are several limitations in this study. First, the representations of the participants must be considered (Urrea, 2010). The participant sample found in this study may not be representative of all teachers. All participants were from one school, all were female, and most were Caucasian. Because of the small sample size, only very careful generalizations should be made about the results beyond the scope of this particular sample of teachers who were part of this study. Different results may occur depending on the ethnicity, gender, and teaching level of a different grouping of participants.

Other limitations in this study are the content areas for which the instructional coach felt she could adequately offer support. One participant indicated she felt supported by the instructional coach in the area of language arts, but the instructional coach indicated to her that she lacked instructional knowledge in mathematical content areas. The implications of this led the participant to believe she had more insight and instructional knowledge in this particular content area.

Time constraints were also a limitation in this study. An instructional coaching intervention was limited to 10 weeks. Given more time, teachers could have shown more growth

instructionally, students' academic growth could have shown different results, and the instructional coach could have affected the participants differently.

Another limitation (which could be considered a delimitation) is that the school principal chose the participants to be involved in this study. The principle researcher indicated to the school principal the need for the participants to be limited to less than eight and have an established relationship with the instructional coach. The number of participants needed for this study needed to be a small group because of the nature of the qualitative pieces the principle researcher wanted to use for this study (Marshall & Rossman, 2011). The school administrator wanted to be involved in choosing participants who she believed already had an established relationship with the instructional coach and would want to be part of this research study.

Finally, another limitation could be the biases of the researcher. Since the researcher in this particular study was an instructional coach, personal passions relating to instructional coaching support could have clouded the interpretations of portions of the data related to this study. The principle researcher went to great lengths to be unbiased in finding themes when analyzing both the qualitative and quantitative portions of this study and was careful to include member checking. Member checking validated the resultant themes, thus, provided greater credibility and lessens researcher as instrument bias.

Recommendations for Further Research

One future research opportunity would be to consider a study similar to this one in terms of teacher efficacy, instructional coaching, and student achievement but add a second grouping of teachers not receiving instructional support. Making comparisons between teachers receiving new instructional learning with support from an instructional coach and teachers not receiving support with implementation of new learning could provide much needed insight to the

importance of the partnership approach to coaching. Adding this component could provide insight regarding the connection between teacher efficacy and the lack of instructional support. This could provide a deeper understanding of the importance of instructional coaching to an efficacious system.

It would also be interesting to consider the efficacy of an instructional coach and how this component could influence the support received by teachers. In this study, the instructional coach showed evidence of strong knowledge in the area of English language arts. However, there was evidence to show the coach did not feel the same level of confidence when supporting teachers in the content area of mathematics.

Also adding to this idea would be to study the effects different types of coaching had in the field of education. There are many ways to coach teachers in the educational profession and comparing the effectiveness of these different methods could be an intriguing topic to consider. In this study all but one participant responded well to the partnership approach to coaching but may have benefitted from some other type of coaching support. More research studies need to include instructional coaching as an intervention piece to adequately see the effects coaching has in public education.

Finally, research in the area of school leadership to gain insight into school leaders' levels of understanding of teacher efficacy should be considered. Too often, educational leaders lack the time and ability to understand the depth and influence teacher efficacy has on student achievement. Without this knowledge, a school administrator could try many strategies to help an educational system grow without considering teacher, collective, or student efficacy.

Implications for Professional Practice

The results of this study have essential implications for the way in which schools support teachers. Effectively supporting teachers is a complex idea, one that takes time to completely understand. The traditional idea of sending teachers to professional development sessions outside of a school with the expectation that they will implement what they learn will not bring sustainable change to instructional practice (Knight, 2007; Karimi, 2011). Essentially, districts and schools need to recognize that the power of creating a highly effective school begins with finding ways to sustainably support teachers and their learning (Bandura, 1997; DuFour, 2004; Elliot et al., 2010).

Looking at the implications of instructional support needed to provide opportunities for teachers to strengthen their teacher efficacy, decision makers must recognize the complexity of this idea. Teachers must be surrounded by support in many different capacities if effective instructional change is going to happen (Bandura, 1997; DuFour, 2004; Hall & Simeral, 2008). Participants in this study affirmed the need for supportive leadership to pave the way for potentially great instruction. Participants also saw the need for instructional support through a partnership between themselves and the instructional coach. The administrator created strong supportive grade-level teams who could work well together and created opportunities for staff to work collectively while keeping student success in the forefront. Together this teamwork led to an efficacious system, a system in which the participants were given opportunities to learn through being supported and in turn, help themselves strengthen their efficacy beliefs (Bandura, 1997; Knight, 2011).

This study clearly demonstrated the necessity for instructional support through a partnership with an instructional coach when teachers learn and implement new practices.

Participants indicated various ways they responded to or individually wanted this support. Through this type of partnership, teachers were able to grow their instructional practice and included new learning in the area of English language arts. This study indicates the need for site-based instructional coaching support, not only to help teachers improve instructional practice, but also to support teacher efficacy. Teacher efficacy beliefs influence the ability to create high levels of learning for students and integrates the conviction that all students can and will learn (Woolfolk Hoy & Davis, 2006).

The last segment of this study focused on the effects instructional coaching had on teacher efficacy and how that influenced student achievement. The influence of an efficacious teacher has a potentially large impact on both student achievement and student efficacy (Woolfolk Hoy & Davis, 2006). Participants in this study showed evidence of growth in efficacy in instructional strategies, and their students also demonstrated growth in the area of English language arts. Strengthening and supporting the instructional practice of teachers led to an increase in student achievement. The goal of districts and schools across the country is to grow the achievement of students so that they will be college and career ready (Calkins et al., 2012). This study demonstrates how providing teachers with support can lead to such objectives.

The challenge to districts, superintendents, schools, and principals is to find ways to support the most valuable asset they have in reaching students. This asset is the classroom teacher. Understanding the influence teacher efficacy and collective efficacy have on the instruction students receive is crucial to moving towards an educational system with sustainable capacity for teaching and learning. Understanding the complexity of such a system involves having a consistent willingness to learn and the desire to continually change to become better. The hope is individuals with leadership skills and a deep-rooted passion for teaching and

learning will find ways to include these rich and meaningful ideas into the schools and districts they serve.

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Appendix A

Qualitative Informed Consent Form

A. Purpose and Background

I am currently a doctorate student at Northwest Nazarene University and I am conducting a research study to develop an understanding of the connection between instructional coaching, teacher efficacy, and student achievement.

The purpose of this study is to determine if instructional support from an instructional coach can enhance teacher efficacy and increase student achievement. I appreciate your involvement in this study to develop an understanding of the correlation between instructional coaching and student achievement.

You are being asked to participate in this study because you are over the age of 18 and you fit the criteria for the study.

B. Procedures

If you agree to be in the study, the following will occur:

1. You will be asked to sign an Informed Consent Form, volunteering to participate in the study.
2. You will be interviewed at the beginning of this study. The interview will take place either in August, 2013, or September, 2013. You will also be asked to fill out a teacher efficacy scale at the beginning and end of this study. The interviews will be audiotaped and are expected to take approximately 45 minutes each. The efficacy scale will not take longer than 10 minutes to fill out.
3. After the interviews have been transcribed and coded, themes will be shared with you to ensure that the information is correct.

C. Risks/Discomforts

There is minimal risk involved if you volunteer for this research. You will not be identified in the research, all interviews and responses will be kept confidential, and all data will be secured in my home. Observations will occur at your place of employment, but the location of interviews will be at your discretion.

Some of the questions in the interview may make you uncomfortable, but you are free to decline to answer any questions you do not wish to answer or to stop participation at any time. There will be no compensation for your participation in this study.

D. Benefits

There will be no direct benefit to you from participating in this study. However, the information you provide could further the understanding of the effects instructional coaching may have on teacher efficacy and student achievement.

E. Payments

There are no payments for participating in this study.

F. Questions

If you have any questions or concerns about participation in this study, please feel free to contact the research investigator, Shannon Panfilio-Padden. She can be contacted at [redacted]; or by email at [redacted] You may also contact my Faculty Advisor, Dr. Heidi Curtis, via email at [redacted]

Should you feel distressed due to participation in this study, you should contact your own health care provider.

G. Consent
You will be given a copy of this consent form to keep.

Participation in research is voluntary. You are free to decline to be in this study, or to withdraw from it at any point. This research study has been approved by the Northwest Nazarene University Human Research Review Committee.

I give my consent to participate in this study:

_____ _____
Signature of Study Participant **Date**

I give my consent for the interview to be audiotaped in this study:

_____ _____
Signature of Study Participant **Date**

I give my consent for direct quotes to be used in this study. No identifying information will be used in the report from this study:

_____ _____
Signature of Study Participant **Date**

Appendix B

Permission from Dr. Jim Knight to use the Reflection Sheet

On May 13, 2013, at 10:03 PM, "Panfilio-Padden, Shannon" [redacted]> wrote:

Hi Jim,
I am finishing up the methods portion of my dissertation I emailed you about in February. I am wondering if you have a recent list of interview questions an instructional coach could give to a teacher at the beginning of a school year. Also, I found through the University of Kansas website a Reflection Sheet for teachers to use after meeting with a coach. Is this from your work? If so, I am seeking your permission to use this tool for part of the qualitative portion of my study.
Thanks again for your help.

~Shannon

From: Jim KNIGHT [redacted]
Sent: Friday, May 17, 2013 7:48 PM
To: Panfilio-Padden, Shannon
Subject: Re: Question for you from Nampa, Idaho.

Hi Shannon,

You are more than welcome to use the form, and someone actually done their dissertation on the form, though I put it together. It is based on the US Army after action report.

I'm afraid the questions we use are the same as the ones in the Instructional Coaching book. Good luck. Please keep me posted.

Jim

Jim KNIGHT [redacted]
Sent:Saturday, June 01, 2013 10:58 PM
To: Panfilio-Padden, Shannon
Best of luck!
On Jun 1, 2013, at 11:54 PM, "Panfilio-Padden, Shannon" <spanfiliopadden@nsd131.org> wrote:

Hi Jim,
Thank you so much for emailing me back. I will be in touch with the results of my study. I plan to begin my research in August. Thanks again for all of your help!
~Shannon

From: Jim KNIGHT [redacted]
Sent: Saturday, June 01, 2013 8:23 PM
To: Panfilio-Padden, Shannon
Subject: Re: A few more questions for you from Nampa, Idaho

Hi Shannon,
I'm not sure if I responded to your question, but you are perfectly free to use the questions. I'd be grateful to hear what you find though.

Best,

Jim

Appendix C
Reflection Sheet

The University of Kansas Center for Research on Learning
(www.instructionalcoach.org)

This form is inspired by ideas in Bill Jensen's Simplicity: The New Competitive Advantage

KU CENTER FOR RESEARCH ON LEARNING
The University of Kansas

Instructional Coaching
Progress through Partnership

REFLECTION SHEET

How do I feel about what I've learned during this session?

What are the most important ideas I've heard? What's my evaluation of these ideas?

How can I use this new knowledge? What will I do differently in the future?

Appendix D

Initial Interview Questions, Self-Efficacy Research

Date: Time: Location:

Years of Experience:

1. Tell me about you and your family.

2. What are the rewards you experience as a teacher?

3. What are your professional goals?

4. What obstacles interfere with your achievement of professional goals?

5. What kinds of professional learning are most/least effective for you?

6. What do you really like about your job?

7. How has your job changed over the past five years?

8. How has your philosophy changed over the past five years?

9. How do you create a room so that authentic learning can take place?

Knight, J. (2007). *Instructional coaching: a partnership approach to improving instruction.* Thousand Oaks, CA: Corwin Press.

Appendix E

Permission to use Teachers' Sense of Efficacy Scale

Shannon Panfilio-Padden <[redacted] May 27 (3 days ago)

[redacted]

Dear Dr. Megan Tschannen-Moran and Dr. Anita Woolfolk Hoy,

I am writing to seek permission to use the Teachers' Sense of Efficacy Scale. I am a doctoral student attending Northwest Nazarene University in Nampa, ID. My educational thesis focuses on teacher efficacy and student achievement with support given to the teacher through the work of an instructional coach. Author and researcher Dr. Jim Knight gave me information on your teacher efficacy scale and it would be an honor for me to be able to use it in my study.

I admire the work you both have completed in the area of teacher efficacy. I included several of your articles in the research portion of my dissertation.

If I need to contact someone else regarding the use of this tool or need to pay in order to use it, please let me know. I am finishing my research application and would like to include the Teachers' Sense of Efficacy Scale as part of my research study.

Thank you for your time and consideration. Wishing you both a restful summer.

Sincerely,

Shannon Panfilio-Padden

Anita Hoy <[redacted] May 27 (3 days ago)

You are welcome to use the TSES in your research. This site might be helpful to you.

http://people.ehe.osu.edu/ahoy/research/instruments/

Anita

Anita Woolfolk Hoy
Professor Emerita
Educational Psychology & Philosophy
The Ohio State University

[redacted]

phone: [redacted]
Cell: [redacted]

[redacted]

Megan Tschannen-Moran May 28 (2 days ago)

Shannon,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale) that I developed with Anita Woolfolk Hoy in your research. You can find a copy of the measure and scoring directions on my web site at http://wmpeople.wm.edu/site/page/mxtsch .

Please use the following as the proper citation (even though the earlier name was used in that article):

Tschannen-Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics. Because the use of coaching is an area in which I have a special interest, I would love to receive a brief summary of your results.

All the best,

Megan Tschannen-Moran

The College of William & Mary

School of Education

PO Box 8795

Williamsburg, VA 23187-8795

[redacted]

[redacted]

Appendix F
Teachers' Sense of Efficacy Scale: Long Form

Teacher Beliefs - TSES

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidentia

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

	None at all		Very Little		Some Degree		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 G
Permission to use Mondo Language Arts Assessments

Dear Susan Eddy and Yatin Bavishi,

I am writing to seek permission to use two of the Mondo assessments, 3-5 Reading Record and the Retell/Recall/Comprehension assessment in my dissertation study. I am a doctoral student attending Northwest Nazarene University in Nampa, ID. My educational thesis focuses on teacher efficacy and student achievement with support given to the teacher through the work of an instructional coach.

I will be working with teachers at Endeavor Elementary School in the Nampa School District. My understanding is the teachers at Endeavor have received training using the Mondo curriculum and assessment and I would like to include student data from these assessments as part of my study.

Thank you so much for your time and consideration.
Sincerely,
Shannon Panfilio-Padden

-----Original Message-----
From: Susan Eddy [redacted]
Sent: Wednesday, May 29, 2013 10:30 AM
To: Panfilio-Padden, Shannon
Subject: Re: Seeking permission to use Mondo assessment in dissertation study

Hi, Shannon--I've received your request and will get back to you as soon as I can. However, please note that you're really asking to use a lot more than 2 assessments. There are about 28 reading records and each one has retell/recall to go with it. So it's a lot--over 50. Do you need permission to use ALL of them?
Thanks,
Susan

Susan Eddy
Associate Publisher
Mondo Publishing
980 Sixth Avenue
[redacted]

Hi Susan,
I actually spoke with the instructional coach I will be working with who

understands the Mondo assessments better than I do. I need for all 4th grade students to take the same assessment and all the 5th grade students to take the same assessment. So, I will need permission to use 2 different reading records and the two different retell/recall assessments that go with those reading records. If I understand the way Mondo is set up, that would be a total of four assessments. Hope this answers the question you are asking me.
Thank you,
~Shannon Panfilio-Padden

Sent:Wednesday, May 29, 2013 3:06 PM
To: Panfilio-Padden, Shannon
Hi, Shannon--
Okay, that makes more sense. Sure, go ahead with those--that's fine. It would be good to know which two assessment titles you end up using (every reading record is linked to a text passage that students read to you).
Thank you,
Susan

Appendix H:

Member Checking Email Text

Date

Dear –

Thank you so much for participating in the study this past fall. I wanted you to know that there were themes found throughout the interviews of all the participants (please see below). Please let me know if these themes were accurately represented from the interview that you participated in. If you have any modifications to the interview, please feel free to contact me. I appreciate your time and consideration.

[outline themes]

Thank you again for your help and I look forward to hearing from you.

Shannon Panfilio-Padden, Doctoral Student
Northwest Nazarene University
Telephone: [redacted]
HRRC Approval #TBA

Appendix I
3-5 Reading Record

RETELL/RECALL/COMPREHENSION SCORING SHEET 3–5

Student Name: _____ Date: _____

Title: _____ Level: _____

☐ **Fiction: Retell**

Prompt

"Tell me what this text was all about."

or

"What was that story mainly about?"

then

"What else happened?"

Score

3 points for a full retelling of 4 or more details, *sequentially told*

2 points for 2–3 details, *sequentially* told

1 point for 2 or more details, *not* sequentially told

0 points for 0–1 detail

☐ **Nonfiction: Fact Recall**

Prompt

"Tell me some things that you learned about in this passage."

then

"What else do you remember?"

Score

3 points for 3 facts *(any order)*

2 points for 2 facts *(any order)*

1 point for 1 fact

0 points for 0 facts

Teacher Comments/Notes: Record what the student actually says

Retell/Recall Score ☐

Comprehension

1. If the student has already included the answer in the retell or recall, there is no need to ask that particular question. Student automatically receives credit for that question.
2. Score 1 point for each question (see question master sheet). Maximum score is 3 points.

Comprehension Questions Score

	Correct	Incorrect
1.	☐	☐
2.	☐	☐
3.	☐	☐

Comprehension Score ☐

Total Score ☐

Total Score
Add the scores of retell/recall and comprehension. Maximum score is 6 (3 points retell/recall, 3 points comprehension)

Appendix J

[redacted] **ELEMENTARY**

[redacted]

Permission From School Site to Conduct Research
May 2, 2013
Northwest Nazarene University
Attention: HRRC Committee
Helstrom Business Center 1ST floor
623 S University Boulevard
Nampa, Idaho 83686

RE: Research Proposal Site Access for Mrs. Shannon Panfilio-Padden

Dear HRRC Members:
This letter is to inform the HRRC that Administration at [redacted] Elementary School has reviewed the proposed dissertation research plan including subjects, intervention, assessment procedures, proposed data and collection procedures, data analysis, and purpose of the study. Mrs. Shannon Panfilio-Padden has permission to conduct her research study on the campus of and with the students of [redacted] Elementary School. The authorization dates for this research study are July 2013 to April 2014.

Respectfully,

[redacted]
Principal of [redacted] Elementary School
[redacted]

Appendix K

HRRC Certificate Copy Of: Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Shannon Panfilio-Padden successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 10/27/2012

Certification Number: 1034700