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Pepperdine University
Graduate School of Education and Psychology

THE RELATIONSHIP BETWEEN JOB-EMBEDDED PROFESSIONAL DEVELOPMENT
AND SPECIAL EDUCATION TEACHER SELF-EFFICACY
IN HARD-TO-STAFF MIDDLE SCHOOLS

A dissertation proposal submitted in partial satisfaction
of the requirements for the degree of
Doctor of Education in Organizational Change

by
Sarah Dhah

July, 2015

Reyna Garcia-Ramos, Ph.D. – Dissertation Chairperson

This dissertation, written by

Sarah Dhah

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfilment of the requirements for the degree of

DOCTOR OF EDUCATION

Doctoral Committee:

Reyna Garcia-Ramos, Ph.D., Chairperson

Nancy Harding, Ph.D.

David Stevens, Ph.D.

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VITA

Sarah Dhah

EDUCATION

Doctor of Education in Organizational Leadership
 Pepperdine University, Graduate School of Education and Psychology
 Los Angeles, CA 2015

Master's of Science in Education
 California State University Fullerton
 Fullerton, CA 2010

Bachelor of Arts in History
 University of California Irvine
 Irvine, CA 2005

EMPLOYMENT

Teacher Development Specialist
 Houston Independent School District
 Professional Support and Development
 Houston, TX 2011–2014

Special Education Teacher
 Orange Unified School District
 Orange, CA 2008–2011

Teach for America Corps Member
 Los Angeles Unified School District
 Los Angeles, CA 2005–2008

ABSTRACT

The limited research that exists regarding instructional coaching and teacher efficacy suggests that instructional coaching may be related to higher levels of teacher self-efficacy. However, this potential relationship had not been explored specifically at the middle school special education, hard-to-staff school level. Hard-to-staff schools were defined for the purpose of this study as schools that experience difficulty with teacher recruitment, especially in hiring and retaining teachers who have had students succeed on standardized tests.

The purpose of this study was to explore the relationship between instructional coaching and special education teacher self-efficacy in hard-to-staff middle schools. The researcher explored whether teachers who worked closely with instructional coaches on a regular basis displayed higher levels of self-efficacy than did teachers who work with instructional coaches less often or not at all. The researcher also interviewed participants to generate deeper insight on the teacher-perceived definition of instructional coaching, self-efficacy, and factors that influence teacher career plans.

A mixed-methods approach was used to collect and analyze data in this study. Quantitative survey methods were used to collect teacher self-efficacy data via the Teacher Sense of Efficacy Scale, and the qualitative focus group interview component was used with the participants.

The researcher implemented 37 surveys and 3 focus group interviews with 9 participants. The results of Research Question 1 (instructional coaching definitions) emerged as: (a) facilitating PLC meetings, (b) collaborating on planning, (c) modeling new instructional strategies, (d) observing teachers and providing feedback, and (e) communicating in multiple ways. Research Question 2 (coaching and teacher self-efficacy) resulted in three of the four

relevant correlations to be significant. Key findings that pertained to Research Question 3 (factors that influenced career plans) were: (a) interpersonal interactions, (b) feeling challenged, (c) feeling successful, and (d) family responsibility; the leaving theme was identified as feeling overwhelmed. In the final chapter, these findings were compared to the literature, conclusions and implications were drawn, and a series of recommendations were suggested.

Chapter 1: Introduction

This chapter provides an introduction to the dissertation and begins with the background of the problem, which concerns the difficulty of staffing certain middle schools. This is followed by the statement of the problem, purpose of the study, and research questions, which focus on the intersection of the following areas: (a) retention of special education teachers, (b) teacher efficacy, and (c) instructional coaching. Next, the limitations, delimitations and assumptions of the study are discussed. Finally, a definition of terms is provided, followed by a summary of the chapter.

Background of the Problem

The No Child Left Behind (NCLB) Act of 2001 revealed the depth of the nation's achievement gap, the low performance on standardized assessment, and the declining graduation rates among the nation's at-risk students. At-risk students include students of low socioeconomic status, students in minority groups, and students with special needs. The NCLB legislation required schools to be held accountable for improving the standardized test scores and graduation rates of at-risk students. Researchers sought to discover how to improve outcomes for these students, especially in schools that experience difficulty recruiting and retaining effective teachers (Ingersoll, 2001) or in hard-to-staff schools.

Hard-to-staff schools are often low income and low performing and experience high rates of turnover, as much as 20% annually of their faculty, especially in high-need areas, such as special education (Ingersoll, 2002). The literature indicates that working conditions that include heavy teaching loads, large class sizes, ineffective mentors, and little time for collaboration contribute to this high rate of teacher attrition (Yost, 2006). Teachers at these schools are likely

to transfer to other positions in higher performing, higher income schools (Johnson & National Education Association [NEA], 2006).

Effective teachers in hard-to-staff schools have been shown, through observational studies, to use similar characteristics when dealing with their students (Lemov, 2010). Lemov found that certain teachers were more effective with students at hard-to-staff schools than were others. Some teachers were able to improve student performance one to two standard deviations above the mean as measured by state-mandated performance assessments. Lemov searched out those outliers who motivated at-risk children to succeed despite great challenges and observed how those teachers taught. From years of research and observation, he isolated and identified strategies that these highly effective teachers were using that could be replicated across content areas to positively affect student achievement. He numbered and named each strategy, videotaped effective teachers' implementation of them, and described each in depth so that any teacher could replicate any of the techniques (Lemov, 2010).

Although the research on evidence-based effective practice for teachers is extensive, as shown by Lemov's (2010) work, research is not always translated into practice. Teacher self-efficacy, "the beliefs teachers hold about their personal capabilities to perform their duties in the classroom" may play a part in whether teachers change their practice to reflect evidence-based instructional practices in their classrooms (Klassen, Usher, & Bong, 2010, p. 465). The traditional model of in-service sessions, where teachers receive information and are expected to return to their campuses and translate research into practice, may not translate into real-world application if teachers do not feel that they can implement the new learning effectively with students. This is corroborated by Knight's (2009) finding that in-service models of professional development have a low success rate at changing teacher practice in the classroom. This low

success rate has stimulated innovation and change in the world of professional development for teachers.

Job-embedded professional development (JEPD), which refers to a move away from the traditional model of in-service training for teachers, may play a role in building teacher self-efficacy. JEPD describes a range of activities that may take place in schools with individuals alone, one-on-one, or in teams to “identify and support the implementation of evidence-based instructional practice” (Croft, Coggshall, Dolan, Powers, & National Comprehensive Center for Teacher Quality, 2010, p. 7). Croft et al. identified 12 commonly used formats for JEPD (Appendix A), including professional learning communities (PLCs) and instructional coaching. PLCs refer to collaborative meetings of teachers in which they analyze their current practice, problem solve, and agree to implement new strategies. They then test the effectiveness of the strategies by analyzing student assessment data, continually reflecting and improving upon their practice. The particular format of JEPD in this study will be instructional coaching supported by PLC work.

Instructional coaching is a relatively new construct, although the coaching construct under various labels in education has appeared in the literature for over 80 years (Cassidy, Garrett, Maxfield, & Patchett, 2010). Instructional coaching, for the purposes of this study, refers to support from a knowledgeable, professional development partner who models and provides feedback on research-based practices (Sailors & Shanklin, 2010). Instructional coaching may be used by school leaders to improve teacher effectiveness, retain effective teachers, and increase student outcomes. In one study that explored the effects of instructional coaching on teacher practice in hard-to-staff schools, the content-focused coaching program was

shown to improve student outcomes and increase perceived levels of instructional effectiveness (Matsumura, Garnier, Correnti, Junker, & Bickel, 2010).

For the purposes of this study, instructional coaching is a reciprocal process that fosters flexibility and independence in teacher development (Gross, 2010). Effective coaches collaborate with teachers to “understand why teachers make the instructional choices they do, pose rationales for other instructional possibilities, and work together toward change” (Rodgers & Rodgers, 2007, p. 17). The coach and teacher work together toward a goal of increasing teacher efficacy and, thus, student outcomes. Instructional coaches also may have the role of leading the PLCs and training sessions, then following up with individualized, in-class support for teachers, which includes providing observation and feedback, modeling of effective practices, collaborative planning, and reflecting on student work and assessment results.

Statement of the Problem

The teachers in hard-to-staff schools are challenged by the nature of the student body, who faces socioeconomic hardships as well as language and literacy barriers. Hard-to-staff schools are often low income and low performing and experience high rates of turnover, as much as 20% annually of their faculty, especially in high-need areas, such as special education (Ingersoll, 2002). Up to one-fifth of teachers in these settings leave each year (Ingersoll, 2001). Instructional coaching may be a means to retain these teachers by helping them to improve their effectiveness, which, in turn, will enhance student outcomes.

Sailors and Shanklin (2010) indicated that “coaching is a viable and effective form of professional development for teachers [but that the] specific details as to the role of coaches in . . . improv[ing] teacher instruction [has] yet to be determined” (p. 5). Although many researchers have described the roles of coaches in the development of teacher efficacy (Knight, 2007, 2009;

Rodgers & Rodgers, 2007; Toll, 2009), few have focused on coaching at the middle school level (Gross, 2010) and fewer still have focused on coaching as it relates to special education teachers and their perceptions of self-efficacy at hard-to-staff schools (Lovett et al., 2008).

An exhaustive search was conducted by the researcher for scholarly peer-reviewed articles in the EBSCO Academic Search Complete database yielded no results for the intersection of the terms *instructional coaching*, *middle school*, and *special education* as well as for the terms *job-embedded professional development*, *middle school*, and *special education*. A search for the same terms in the ERIC database yielded one result: a three-year study regarding the effect of a JEPD program at six rural and urban schools in Georgia. The results of the analysis indicated that JEPD was effective in a “continuum of service delivery from traditional self-contained and resource rooms to co-taught general education content classrooms” (Strieker, Logan & Kuhel, 2012, p. 1062). The researchers recommended that future study take place to qualitatively analyze how specific schools engage in JEPD to explore how teachers develop expertise and how teachers define “the relationships between teacher practices and student outcomes” (p. 1063). A further search was conducted by the researcher for the terms *job-embedded professional development*, *self-efficacy*, and *special education*, which also yielded no results in the EBSCO Host and ERIC databases. A similar search for *instructional coaching*, *teacher efficacy*, and “*special education* yielded no results for the intersection of the terms in either database.

Teacher self-efficacy refers to teachers’ perceptions of their abilities to perform the tasks required of them to improve student outcomes and may be related to the effort and persistence that teachers expend on their students (Cantrell & Hughes, 2008). In one study regarding the effects of coaching on teacher practice in hard-to-staff schools, the content-focused coaching

program was shown to improve student outcomes and increase perceived levels of instructional effectiveness (Matsumura et al., 2010). It is, therefore, prudent to explore the relationship between instructional coaching and teacher self-efficacy as a means to professionally develop and retain effective middle school teachers in hard-to-staff schools, especially in high-turnover areas, such as special education. For the purposes of this study, middle school special education teachers (MSSETs) will be defined as teachers who serve students with special needs between sixth and eighth grades in the public school setting. MSSETs will be highly qualified as defined by the Texas Education Agency (TEA; TEA, Division of IDEA Coordination, 2011) by meeting the following guidelines: possess a bachelor's degree or higher, possess a full Texas special education teaching credential, and have demonstrated subject competency in each core subject area taught by passing the appropriate state approved exam or completing an academic major, a graduate degree, coursework equivalent to an academic major, or advanced certification or credentialing. MSSETs included in this study may serve in a variety of campus-based capacities, such as resource, inclusion, and self-contained settings, which are elaborated upon in the Definition of Terms section.

Purpose of the Study

The purpose of this study was to explore the relationship between instructional coaching and teacher efficacy with special education teachers in hard-to-staff middle schools in a large metropolitan district in Texas. Further, this study explores the career plans of the teachers who participated. It was expected that teachers who worked closely with instructional coaches on a regular basis, both one-on-one and in PLCs throughout the academic year, would display higher levels of self-efficacy than would teachers who worked with instructional coaches less often or not at all. The limited research that exists regarding instructional coaching and teacher efficacy

suggests that instructional coaching may be related to higher levels of teacher self-efficacy (Shidler, 2009). However, this potential relationship had not been explored specifically at the middle school special education, hard-to-staff school level.

Research Questions

1. How do special education teachers in hard-to-staff middle schools define instructional coaching?
2. How does the frequency of coaching of special education middle school teachers relate to teacher self-efficacy?
3. What factors influence the career plans of special education middle school teachers in hard-to-staff schools?

Significance of the Study

Ideally, the findings from this study can be used to promote further research with regard to the relationship between JEPD and middle school special education teacher self-efficacy in hard-to-staff schools, as well as to stimulate change in current professional development programs that may not be JEPD. Districts also may want to change their professional development models to JEPD that includes peer-to-peer support from instructional coaches. School leaders may use the data collected in this study to build a staff of self-efficacious special education teachers in hard-to-staff middle schools. Further, the results of this study may yield new hypotheses regarding instructional coaching and teacher self-efficacy as well as the relationship between coaching and teacher retention in hard-to-staff schools. This study is particularly significant because it concerns the efficacy of special education teachers, a population that is especially difficult to retain (Ingersoll, 2002).

Limitations

Although multiple forms of coaching exist, the researcher targeted the practice of instructional coaching with special education teachers. In addition, the schools included in this study were limited to public secondary schools in an urban school district in Texas. This study was limited by single-source bias, as the same instrument measures both the independent and dependent variables. Another limitation to the study included the factors outside of professional development and coaching that affected teacher self-efficacy that were not analyzed. A final limitation was that the survey was completed on a voluntary basis and reflected a small sample size.

Delimitations

For the purposes of this study, the researcher selected schools in a large urban school district in southeast Texas designated *improvement required* for the 2012–2013 school year as reported by the TEA. Improvement-required schools failed to meet Annual Yearly Progress (AYP) targets mandated by the federal government in accordance with the NCLB Act. Teachers who were approached to participate in the study met the following requirements:

1. Possess special education instructional certification.
2. Highly qualified: possess a bachelor's degree or higher, possess a full Texas special education teaching credential, and have demonstrated subject competency in each core subject area taught by passing the appropriate state approved exam or completing an academic major, a graduate degree, coursework equivalent to an academic major, or advanced certification or credentialing.
3. A middle school placement (6th, 7th, or 8th grade),
4. Assigned to a school designated *improvement required*.

5. Assigned as a special education instructor for two or more years.
6. Assigned to a placement in one or more of the following specific campus based capacities for at least two years: Resource; Inclusion (Co-teach, Support Facilitation, Content Mastery); Skills for Learning and Living (SLL); Structured Learning Center (SLC); Behavior Support Center (BSC); Preparing Students for Independence (PSI; Houston Independent School District, 2013).
7. Assigned to a school that receives instructional coaching and JEPD services from the school district.

Due to the wide variety of campus-based placements in which teachers may serve, the researcher grouped the teachers into two categories to limit variables. Resource and Inclusion teachers serve students with high-incidence disabilities (i.e., learning disabilities), while SLL, SLC, PSI, and BSC teachers serve students with low-incidence disabilities. Both categories of teachers were included in the study and noted accordingly.

Schools excluded from this study comprised any schools outside of the large urban school district in southeast Texas. Teachers excluded from this study were elementary, middle, and high school general education teachers and any middle school special education teachers at schools not designated as improvement required by the TEA. New teachers (teachers within the first two years of their career) also were excluded, as they are in a separate mentoring program from their more experienced colleagues, which would have confounded data collected.

Delimitations also have been established for language that refers to teacher retention. Delimitations of teacher retention established by the researcher for the purposes of this study include teacher intent to remain in a hard-to-staff middle school special education position. This may include teacher intent to move within campus-based special education positions on the same

campus as well as teacher intent to move from their current hard-to-staff school to a similar school and similar position within middle school special education.

Assumptions

Instructional coaches who work with the teachers included in this study were selected and trained according to Knight's (2007) instructional coaching model. All of the instructional coaches who work with teachers included in the study had at least five years of classroom experience and were selected to interview for their coaching position based on their own ability to move student scores in their classroom as measured by value-added standardized student achievement data. The coaches in this study were considered highly effective teachers in the classroom based on value-added student performance data and administrator observation. They were then selected and trained to become full-time instructional coaches. Each coach received a copy of Knight's instructional coaching book and two days of training with the author. This was followed up by two days of practicum, in which the coaches role-played using Lemov's (2010) coaching model strategies.

The coaches also were required to attend weekly meetings, at which coaching practices were reviewed and normed using video footage as well as critical feedback and reflection on practice. Coaches were required to keep notes on teachers with whom they worked at each campus and describe the effective instructional practice on which they coached, according to the district's instructional practice rubric (e.g., observed and provided feedback on behavior management that focused on the Teach Like a Champion strategy, *No Opt Out* (Lemov, 2010)). It was assumed for the purposes of this study that district instructional coaches offered a variety of JEPD opportunities to teachers including off- and on-campus training, PLC meetings, and one-on-one instructional coaching.

It was further assumed, for the purposes of this study, that teachers accurately reported the frequency of their work with instructional coaches, their certification, and all other demographic information requested in the online survey. Another assumption included the grouping of campus-based teacher placement into two categories, i.e., teachers who serve students with high-incidence disabilities and teachers who serve students with low-incidence disabilities. The assumption was that the campus-based placements included in each category were similar enough in nature to warrant consolidation. It also was assumed that both categories were similar enough to include teachers from both categories together in focus group interviews.

In addition, it was assumed that the improvement-required campuses (those that failed to meet AYP targets mandated by the federal government in accordance with the NCLB Act) approached for this study also were hard-to-staff schools, i.e., schools that “have great difficulty attracting and retaining teachers, particularly those with characteristics found to be associated with students’ success on standardized tests” (Johnson & NEA, 2006, p. 16). This assumption was based on the school district’s increasing turnover rate, as reported by the Texas Academic Performance Report, 2008–2009 through 2013–2014. The district studied for this project reported turnover rates that had climbed from just under 13% during the 2008–2009 school year to over 19% during the 2013–2014 school year (Texas Education Agency, 2014).

Definition of Terms

Effective teachers. Teachers who are shown to be effective, based on their ability to improve student achievement scores as measured by value-added standardized student achievement data (Green, 2010; Lemov, 2010).

Evidence-based instructional practice (EBIP). An instructional practice that a teacher may apply during classroom instruction that has been vetted by educational researchers and

practitioners to be associated with measurable improvement in student outcomes as measured by student achievement scores on standardized assessments (Lemov, 2010). For the purposes of this study, EBIP will be interchangeably referred to as a research-based instructional practice.

Hard-to-staff schools. Schools that “have great difficulty attracting and retaining teachers, particularly those with characteristics found to be associated with students’ success on standardized tests” (Johnson & NEA, 2006, p. 16).

Highly qualified. Teachers who meet the following guidelines determined by the TEA (TEA, Division of IDEA Coordination, 2011) in accordance with the NCLB Act of 2001 guidelines: possess a bachelor’s degree or higher, possess a full Texas special education teaching credential, and have demonstrated subject competency in each core subject area taught by passing the appropriate state approved exam or completing an academic major, a graduate degree, coursework equivalent to an academic major, or advanced certification or credentialing.

Improvement-required school. For the purposes of this study, the researcher selected schools in the improvement-required category for the 2012–2013 school year as reported by the TEA. Improvement-required schools failed to meet AYP targets mandated by the federal government in accordance with the NCLB Act.

Instructional coach. A professional “partner with teachers to help them incorporate research-based instructional practices into their teaching so that students will learn more effectively” (Knight, 2009, p. 2). An instructional coach may specialize in a certain area of content, such as literacy or mathematics, or an area of service, such as special education, and may serve any age/grade from early childhood to high school. The coaches in this study were trained specifically to use Knight’s instructional coaching model (Appendix B) at the middle school level.

Job-embedded professional development (JEPD). This refers to ongoing work that is grounded in a teacher's everyday practice and specific to his or her content area needs (Darling-Hammond & McLaughlin, 1995; Hirsh, 2009). JEPD concerns a cycle of continuous improvement wherein teachers critically reflect on and change their practice (Hawley & Valli, 1999; National Staff Development Council, 2010). JEPD engages teachers in inquiry-based work regarding their practice (Hawley & Valli, 1999) and is aligned with the state standards for improvement (Hirsh, 2009).

Middle school special education teacher (MSSET). For the purposes of this study, MSSETs will be defined as teachers who serve students with special needs between sixth and eighth grades in the public school setting. MSSETs will be highly qualified as defined by the TEA (TEA, Division of IDEA Coordination, 2011) by meeting the following guidelines: possess a bachelor's degree or higher, possess a full Texas special education teaching credential, and have demonstrated subject competency in each core subject area taught by passing the appropriate state approved exam or completing an academic major, a graduate degree, coursework equivalent to an academic major, or advanced certification or credentialing. MSSETs included in this study were placed into one of the following two categories:

1. Serves students with high-incidence disabilities:
 - a. Resource. Teaches core academic subject areas, such as English, reading, and math, at the elementary level. Secondary resource teachers must be highly qualified in English, math, social studies, or science.
 - b. Inclusion (co-teach, support facilitation, content mastery). Plans and works collaboratively with general education teachers to provide accommodations to meet specific learning needs of students.

2. Serves students with low-incidence disabilities:
 - a. Skills for Learning and Living (SLL). Teaches students with cognitive disabilities in the least restrictive environment.
 - b. Structured Learning Center (SLC). Teaches students with autism in the least restrictive environment.
 - c. Behavior Support Center (BSC). Teaches students with significant emotional disabilities in the least restrictive environment.
 - d. Preparing Students for Independence (PSI). Teaches students with severe cognitive, communicative, sensory and/or physical disabilities in the least restrictive environment (HISD, 2013).

Professional learning communities (PLCs). PLCs are collaborative meetings of teachers from the same grade level or department. PLCs provide teachers with the support and time for reflection to collaboratively improve their pedagogy (McLaughlin & Talbert, 2001). Teachers in these communities collaborate to address student behavioral concerns, instructional accommodations, rigor, higher-level thinking skills, and any other issues that may advance their students' achievement.

Texas Education Agency (TEA). Administrative unit for primary and secondary public education in Texas funded by both state and federal funds.

Teacher retention. For the purposes of this study, teacher retention will refer to teachers who report their intent to remain in the field of middle school special education at a hard-to-staff school for five years or more. Delimitations of teacher retention for the purpose of this study are as follows: Teacher intent to move within campus-based positions on the same campus will be considered retention. If the teacher plans to move from the current hard-to-staff middle school to

another hard-to-staff middle school, that will be interpreted as retention. If the teacher plans to move from a hard-to-staff school to a more affluent school, this will not be considered retention. If the teacher plans to move to a grade level outside of 6–8, this will not be considered retention. If a teacher plans to stay on the current campus for less than five years, that will not be considered retention.

Teacher self-efficacy. “The beliefs teachers hold about their personal capabilities to perform their duties in the classroom” (Klassen et al., 2010, p. 465). The beliefs that people have about their ability to perform may have more of an impact on their performance than do prior skill attainment and knowledge combined (Pajares, 1997).

Summary

Sailors and Shanklin (2010) indicated that instructional coaching may be related to self-efficacy and retention of special educators in hard-to-staff middle schools, yet little research has been conducted to verify this relationship. Although many researchers have described the roles of coaches in the development of teacher efficacy (Knight, 2007, 2009; Rodgers & Rodgers, 2007; Toll, 2009), few have focused on coaching at the middle school level (Gross, 2010), and fewer still have focused on coaching as it relates to special education teachers and their perceptions of self-efficacy at hard-to-staff schools (Lovett et al., 2008).

The current body of research indicates that highly diverse, low-socioeconomic-status schools tend to be harder to staff than are more affluent, less-diverse schools, as demonstrated by high rates of turnover, as much as 20% annually of their faculty, especially in high-need areas, such as special education (Ingersoll, 2002). The construct of teacher self-efficacy has been related to higher job satisfaction, motivation, retention, and student achievement. The limited research that exists regarding instructional coaching and teacher efficacy suggests that

instructional coaching may be related to higher levels of teacher self-efficacy (Shidler, 2009). However, this potential relationship has not been explored specifically at the middle school special education, hard-to-staff school level. If JEPD that includes instructional coaching is related to teacher self-efficacy, then the significance of this study will be in identifying a tool (JEPD that includes instructional coaching) for school leaders to grow and retain effective special education teachers in hard-to-staff middle schools.

Chapter 2: Literature Review

This chapter presents a review of the literature and has incorporated three main areas of research. It begins with an examination of the retention literature and the challenges faced by public schools today. In this section, specific attention will be placed on representing the retention of special education teachers in the state of Texas. The next section of this study presents the literature on effective teachers with a special attention on effective special education teachers. In addition, this section shows the definitions of teacher self- and collective efficacy as well as the foundations for developing efficacy in teachers. Finally, the last section of the literature review focuses instructional coaching and is the intersection of all of the following areas: (a) retention of special education teachers, (b) teacher efficacy, and (c) instructional coaching. These constructs will be examined to explore how they might be related in hard-to-staff schools in a large urban school district in Texas.

Retaining Special Education Teachers

Nationally, 129,890 special education teachers are employed in the United States in elementary and secondary schools and are paid an annual mean salary of \$60,240 (U.S. Department of Labor, Bureau of Labor Statistics, 2012). Texas employs 7,170 of these elementary and secondary special education teachers and pays an annual mean salary of \$52,390 (U.S. Department of Labor, Bureau of Labor Statistics, 2012). This study focuses specifically on MSSETs in a large urban school district in Texas. For the purposes of this study, MSSETs are defined as teachers who serve students with special needs between sixth and eighth grades in the public school setting. The MSSETs who were chosen to participate in this study were highly qualified as defined by the TEA (TEA, Division of IDEA Coordination, 2011) by meeting the following guidelines: possess a bachelor's degree or higher, possess a full Texas special

education teaching credential, and have demonstrated subject competency in each core subject area taught by passing the appropriate state approved exam or completing an academic major, a graduate degree, coursework equivalent to an academic major, or advanced certification or credentialing. MSSETs included in this study may serve in any of the following specific campus based capacities:

1. Resource. Teaches core academic subject areas, such as English, reading, and math, at the elementary level. Secondary resource teachers must be highly qualified in English, math, social studies, or science.
2. Inclusion (co-teach, support facilitation, content mastery). Plans and works collaboratively with general education teachers to provide accommodations to meet specific learning needs of students.
3. Skills for Learning and Living (SLL). Teaches students with cognitive disabilities in the least restrictive environment.
4. Structured Learning Center (SLC). Teaches students with autism in the least restrictive environment.
5. Behavior Support Center (BSC). Teaches students with significant emotional disabilities in the least restrictive environment.
6. Preparing Students for Independence (PSI). Teaches students with severe cognitive, communicative, sensory and/or physical disabilities in the least restrictive environment (HISD, 2013).

Teacher turnover serves as a barrier to developing a consistent, achievement-based school culture, as high turnover rates cause a shortage of highly qualified teachers in K–12 public education setting (Brill & McCartney, 2008). Teacher absenteeism, paired with high rates of

turnover, not only has a heavy financial impact on school districts but also encourages student truancy and negatively affects student achievement. Trends in the literature indicate that students in hard-to-staff schools and schools with high student poverty levels are especially vulnerable to excessive rates of teacher turnover (Petty, Fitchett, & O'Connor, 2012). Students in hard-to-staff schools lack access to qualified teachers, which contributes to massive disparity between at-risk students and their more affluent counterparts at schools that do not suffer from these high rates of turnover (Petty et al., 2012).

Personnel shortages in teaching have reached a critical state across the nation, especially in hard-to-staff schools and hard-to-staff areas, such as special education (Boe, Bobbitt, Cook, Barkanic, & Maislin, 1999; Brownell, Smith, McNellis, & Miller, 1997; Petty et al., 2012). Therefore, district resources are redirected to recruiting and training new personnel rather than strengthening the existing educators and programs (Thornton, Peltier, & Medina, 2007). To address these challenges, researchers need to investigate constructs that assist in the retention of middle school special education teachers at hard-to-staff schools (Billingsley, 2004).

Special educators are proportionately more likely to leave the field than are any other teacher group (Ingersoll, 2001). A wide range of complex factors interact to influence special education teacher decisions to remain in or leave the field (Billingsley, Pyecha, Smith-Davis, Murray, & Hendricks, 1995). Many researchers have used questionnaires to investigate teacher perceptions of their own staying and leaving behavior, but few have solicited issues framed in the teacher's perspective (Billingsley, 2004). Though many studies use open-ended questions, data are often collected at only one point in time (Billingsley, 2004). Billingsley recommended that future studies frame problems that lead to attrition from a teacher's perspective to gain a better understanding of teacher job satisfaction and career decisions. She also recommended an

in-depth qualitative investigation of special education teachers who are committed to working in the field for many years.

The results of a qualitative investigation into the factors that led to the attrition of 93 special educators who had left their positions in a large school district in Florida showed that the most significant factor that researchers identified for special education teacher attrition was dissatisfaction with working conditions (Brownell et al., 1997). Plash and Piotrowski (2006) reported that 70 special education teachers who left a large school district in Alabama reported that “stress from demands of the job, inadequate planning time, wide diversity of student needs, class size/caseload size, excessive paperwork, and demands associated with IDEA compliance” caused them to leave the field of special education (p. 126).

Recent literature regarding school culture indicates, “Teacher retention decreases when teachers are confronted with inadequate support by administrators, lack of resources, and the mismatch between the traditional practices of teacher education program curricula and schools” (Yost, 2006, p. 60). Attrition is a large contributor to the teacher shortage; therefore, studies that investigate factors that influence special education teacher retention warrant further review (Boe et al., 1999). However, several factors are positively correlated with both general and special education teacher retention, as well as job satisfaction and motivation. These include collaborative school culture, PLCs, critical reflection and inquiry, and induction and mentoring programs.

Collaborative School Culture

Collaborative environments may improve teacher efficacy and job satisfaction, raise student achievement, and prevent burnout in teachers (Brownell et al., 1997) by fostering their continuous improvement (Johnson & NEA, 2006). These collaborate and supportive school

environments generate responsive, reflective, and self-efficacious teachers. The self-efficacy of teachers who experience a lack of success early in their teaching career is lower than that of teachers who learn and grow in collaborative environments.

Bandura (1986) identified self-reflection as an important tool in the development of self-efficacy. Yet, new teachers are sometimes deprived of the opportunity to self-reflect and meaningfully grow their practice due to the overwhelming challenges that exist for them (Conway & Clark, 2003). New teachers, as responsive practitioners, must be explicitly taught the tool of self-reflection necessary to increase their self-efficacy, along with other skills that improve student achievement (Yost, 2006).

High levels of collegial support also are associated with teacher retention, while low levels of support are associated with leaving (Miller, Brownell, & Smith, 1999). In a 1996 and 2001 survey, teachers ranked collegial support as one of the most helpful factors that assist them in their work (Johnson & NEA, 2006). “Students pay the price when their teachers work alone, because those teachers are unlikely to have shared goals for student learning and achievement” (Johnson & NEA, 2006, p. 7). However, in a study of 99 special education teachers who left an urban district, only four teachers identified a lack of collegial support as a direct reason for leaving (Billingsley et al., 1995).

Further research is needed in this area to determine the relationship between collegial support and special education teacher career decisions (Billingsley, 2004). Johnson and the NEA (2006) recommended a number of benchmarks for school workplace conditions that affect teacher retention, including professional development that is coherent and job embedded to meet each teacher’s individualized needs, as well as support by principals of active collaborative relationships between teachers at their schools.

Special education teachers report higher levels of commitment when they receive such support from leadership (Gersten, Keating, Yovanoff, & Harniss, 2001). They also report experiencing fewer role issues, lower levels of stress, and higher job satisfaction (Gersten et al., 2001). JEPD, including instructional coaching, may provide this type of positive work environment, potentially reducing attrition and boosting special education teachers' commitment to and involvement in their work (Billingsley, 2004).

Researchers studied the success of beginning teachers who received ongoing job-embedded support from instructional coaches in a multi-component professional development program in a hard-to-staff Chicago school (Shernoff et al., 2011). The teachers served students in a low-income area as measured by free and reduced-priced lunches. The coaches provided PLC meetings, bi-monthly group seminars, and intensive, evidence-based support with instruction and classroom management. Shernoff et al. confirmed that job-embedded multi-component professional support and development that includes a collaborative culture of PLCs, reflection and inquiry, and instructional coaching may help to reduce the incidence of attrition of early-career teachers in urban schools.

PLCs. PLCs provide teachers with the support and time for reflection to collaboratively improve their pedagogy (McLaughlin & Talbert, 2001). Teachers in these communities collaborate to address student behavioral concerns, instructional accommodations, rigor, higher-level thinking skills, and any other issues that may advance their students' achievement. The PLC model fosters innovative thinking in education that has marked results on student achievement (Johnson & NEA, 2006). Coaches may act as facilitators for these communities to guide teachers through their reflective thinking and collaborative planning.

Reflection and inquiry. Critical reflection is a valuable tool that helps teachers navigate the problems that they may experience in the classroom, and teachers will use such a problem-solving tool if they are trained accordingly (Yost, 2006). When teachers use critical reflection to evaluate their own efficacy, retention rates are improved (Kelley, 2004). Further, teachers who are able to justify their actions in the classroom are more effective at improving teaching practice as measured by student achievement scores on standardized assessments (Harste, Leland, Schmidt, Vasquez, & Ociepka, 2004). Critical reflection is a necessary part of professional development, with an intended impact on teacher self-efficacy, persistence, and resilience (Yost, 2006). When teachers experience increased success with students through problem solving, their self-reported levels of resilience, i.e., willingness to persevere with a strategy despite challenges and initial shortcomings, increase (Bobeck, 2002).

Induction/mentoring. New teachers often struggle with myriad problems, including discipline, lack of support, and issues with parents (Gold, 1996). In addition to the concerns of most new teachers, which may include instructional planning, curriculum development, routines, and procedures, special education teachers, in particular, experience additional concerns related to individualized education plan paperwork; special education student scheduling; collaboration with general education teachers, parents, and paraprofessionals; and managing student instructional and testing accommodations (Billingsley & Tomchin, 1992).

Although it has been established that early-career teachers are at the highest risk of leaving, few researchers have studied the relationship between teacher induction and mentoring, and attrition of special education students (Billingsley, 2004). However, Billingsley (2002) stated that effective induction programs can help teachers navigate the challenges of early-career teaching. Further, when novice teachers are given personal support, critical feedback, and

reasonable teaching assignments, they experience enhanced commitment and job satisfaction (Rosenholtz, 1989).

Whitaker (2000) identified several areas of effective mentoring as perceived by teachers, including a selection of a special education mentor, assistance with job mechanics, and emotional support. Mentors must be trained to become effective, and time must be coordinated for the mentor and mentee to meet regularly (Whitaker, 2000). Further, teachers perceive informal contacts as more positive and effective than formal programs (Whitaker, 2000).

One-to-one mentoring models have not been shown to have a statistically significant relationship with teacher job satisfaction, but a positive correlation has been found between job satisfaction and schools that provide ongoing interaction among teachers with varying levels of experience (Whitaker, 2000). Induction programs also have been shown to positively affect teacher retention. The factors with the greatest impact on retention were collaboration and common planning time, which were shown to reduce teacher turnover by 43%, followed by effective mentoring, which reduced turnover probability by 39% (Ingersoll, 2002).

Teacher Efficacy

Student access to a consistent staff of effective teachers is correlated with higher student achievement, as reported by the Education Trust in Washington (as cited in Carey, 2004):

All else equal, students assigned to the most effective teachers for three years in a row performed 50 percentile points higher—that's on a 100-point scale—than comparable students assigned to the least effective teachers for three years in a row. (p. 4)

Effective teachers are demonstrably a valuable human resource to all schools (Darling-Hammond, 2003). Effective teachers have been shown, through observational study, to possess similarities to one another (Lemov, 2010; Pressley, Raphael, Gallagher, & DiBella, 1992).

Patterns in the literature indicate that effective teachers are metacognitive practitioners who continually adjust their strategies based on feedback they receive (Darling-Hammond & Bransford, 2005). If a prescribed method consistently doesn't show the results they seek, they abandon it and display the capability and willingness to transfer knowledge between contexts for the benefit of their students (Lovett et al., 2008), indicating a higher sense of self-efficacy (Wolfolk Hoy & Davis, 2006). For the purposes of this study, self-efficacy refers to "the beliefs teachers hold about their personal capabilities to perform their duties in the classroom" (Klassen et al., 2010, p. 465).

Popp, Grant, and Stronge (2011) conducted a cross-case analysis in which they distinguished and described the behaviors and dispositions of award-winning teachers who served populations of at-risk students. The authors defined at-risk students as those who face myriad challenges outside of their control, such as being highly mobile or homeless and/or experiencing high poverty. They also defined at-risk students as lacking support to succeed in one or more areas, including societal, familial, and school. Six qualities had previously been identified by Stronge (2007) and established in the literature as defining an effective teacher, including classroom management, planning, instructional delivery, assessment practices, background characteristics, and caring.

Previous research also had identified that at-risk students often lack teachers who meet these criteria for effective teaching (National Partnership for Teaching in At-Risk Schools, 2005). In addition, the National Partnership for Teaching in At-Risk Schools (2005) identified three categories of need, i.e., affective, academic, and technical, faced by at-risk students, which effective teachers of these students demonstrated proficiency at meeting. The first category described by the National Partnership for Teaching in At-Risk Schools was affective need. At-

risk students experience lack of motivation, isolation, and frustration (Walls, 2003), which effective teachers mediate through caring interaction, enthusiasm, motivation, positive attitudes toward teaching, and reflectiveness (Stronge, 2007). Effective teachers of at-risk students also were identified as having effective classroom management. In a meta-analysis, Popp et al. (2011) found that effective teachers of at-risk students a higher sense of self-efficacy. They also found that high teacher self-efficacy has a greater impact on low-achieving students; nevertheless, often teachers with the lowest self-efficacy are assigned to the lowest-achieving groups of students.

Self-efficacy in teachers is especially beneficial when considering the implementation of effective instructional practice with at-risk students. Effective teachers not only believe in themselves and their abilities to improve student outcomes, but they also have practices in common that allow them to continually improve both their own instructional practice and student achievement. Popp et al.'s (2011) meta-analysis showed that effective teachers of at-risk students are able to motivate their students by arriving early and staying late to provide extra support for students.

In addition to a higher sense of self-efficacy, award-winning teachers are shown in the literature to effectively meet the academic needs of their at-risk students by assessing student need, planning objective-driven lessons based on that assessment and the curriculum, maximizing instructional time on tasks, and differentiating for individual student needs (Popp et al., 2011). These teachers also provide frequent, detailed written and verbal feedback on assignments to their students, which was identified as a predictor of student achievement by Armor et al. (as cited in Popp et al., 2011). Finally, award-winning teachers address the technical needs of at-risk students, including helping them to gain access to social services. In

other words, these effective teachers address all the needs of at-risk students (technical, affective and academic), enabling these students to achieve in school (Popp et al., 2011).

To study the dispositions and behaviors of these award-winning teachers, Popp et al. (2011) adapted frameworks of effective teaching characteristics from their review of the literature and their own prior research to perform a phenomenological case study. They defined effective teachers as those who had won national awards for teaching. However, though effective teaching may also be measured by student outcomes on standardized measures of achievement, this metric is difficult to use with highly mobile students and, therefore, was not used in the Popp et al. study. The researchers next set out to gather both interview data and on-site classroom observational data on the six participating teachers, who had been selected from a national database of award-winning teachers who served at-risk populations, using maximum variation sampling across grade levels. The researchers used three instruments to gather data during the course of their study: the Differentiated Classroom Observation Scale, the Questioning Techniques Analysis Chart, and a qualitative interview protocol that explored the beliefs of award-winning teachers and reflected the “six categories of qualities of effective teachers and three types of needs (affective, academic and technical)” (Popp et al., 2011, p. 286).

The in-class observations of these teachers indicated that teachers used a variety of instructional strategies in their practice, including questioning across a range of cognitive levels and high expectations for student engagement and performance. These findings confirmed similar results of a previous study of effective teaching in high-poverty schools by Taylor et al. (as cited by Popp et al., 2011). The interviews demonstrated a high level of teacher self-efficacy across the six categories of effective teaching identified by Stronge (2007) and areas of student need (Popp et al., 2011).

Effective teachers are more likely to stay when their work is appreciated, they are afforded the opportunity to learn from their colleagues, and they are able to develop as professionals in an ongoing process of renewal, replenishment, and learning (Barth, 2001; Borman & Dowling, 2006; Darling-Hammond, 2003). JEPD, with a focus on instructional coaching, may provide the type of environment in which effective teachers may develop. It may be prudent, therefore, to explore the factors related to the retention of effective teachers, including the potential relationship between instructional coaching and teacher efficacy.

Efficacy theory. Efficacy theory states that the beliefs that people hold of their own abilities affect their functioning (Bandura, 1997). Teacher efficacy refers to a teacher's belief as to what degree he or she can affect student achievement despite outside influences, such as socioeconomic factors (Berman & McLaughlin, 1977). This belief is directly related to teacher effort and persistence with students (Bandura, 1977, 1986).

Two domains of teacher efficacy, which repeatedly present themselves in the literature, are general efficacy and personal efficacy. General efficacy refers to a teacher's belief that any teacher in general is able to, and should, influence student performance, while personal efficacy refers to a teacher's belief that he or she is personally able to influence his or her students' outcomes (Ashton & Webb, 1986). Teachers who have performed tasks in the past, called mastery experiences, may have the most influence on personal efficacy as demonstrated by literacy teacher efficacy studies, which indicated that teachers who experienced success with a literacy program also had high levels of perceived influence on student outcomes (Tschannen-Moran & McMaster, 2009).

Teacher personal efficacy, or self-efficacy, can be defined as "an individual's judgment of their capability to organize and execute the courses of action required to attain designated

types of performances” (Bumen, 2009, p. 262). Klassen et al. (2010) described teacher self-efficacy as “the beliefs teachers hold about their personal capabilities to perform their duties in the classroom” (p. 465). Teachers’ sense of personal or self-efficacy also has been related to gains in student achievement, teacher job satisfaction, reduced stress, job commitment, and retention (Ashton & Webb, 1986; Caprara, Barbaranelli, Borbogni, & Steca, 2003; Skaalvik & Skaalvik, 2007; Wolfolk Hoy & Davis, 2006; Wu & Short, 1996).

Further, teacher self-efficacy is consistently related to effective teaching behavior (Bumen, 2009), and strong teacher self-efficacy has been proven to increase teacher “motivation, effort, persistence and resilience” (Tschannen-Moran, Wolfolk Hoy, & Hoy, 1998, p. 238). In addition, teachers with strong self-efficacy tend to individualize their instruction by adapting effective practices to meet student needs. They also are often involved in collaborative activities that lead to higher rates of academic achievement and decreased referral rates of their students to special education (Bumen, 2009).

Collective efficacy. Bandura (1997) discussed shared efficacy, or collective efficacy. Collective efficacy can be defined as “a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments” (Bandura, 1997, p. 477). Collective efficacy refers to the shared beliefs of teachers at a school regarding the level of influence they have as a group on student achievement (Goddard, Hoy, & Hoy, 2000). Schools with faculty who possess strong collective efficacy may persist in the face of difficulty and achieve high results with students, while groups with low levels of efficacy are less likely to pursue significant results with students. Teachers’ collective sense of efficacy has been related to gains in student achievement, teacher job satisfaction, reduced stress, job

commitment, and retention (Caprara et al., 2003; Klassen et al., 2010; Skaalvik & Skaalvik, 2007; Wolfolk Hoy & Davis, 2006; Wu & Short, 1996).

People also form collective beliefs about the groups to which they belong (Bandura, 1997). Both self- and collective efficacy can have an impact on performance in diverse areas, including the field of education (Bandura, 1997). Self-efficacy is affected by collective efficacy beliefs, wherein “a group’s collective confidence is influenced by its past success, observation of other groups’ successes, and encouragement from influential others” (Goddard & Goddard, as cited in Klassen et al., 2010, p. 466). The research shows, however, that collective efficacy is linked to self-efficacy because group efficacy is determined by the individual perceptions of its members (Bandura, 1997).

Middle school teacher efficacy. Results of studies of literacy teacher efficacy have demonstrated the positive impact of teacher efficacy at the elementary level, but few studies have addressed teacher efficacy, especially at the secondary (middle school and high school) level (Tschannen-Moran & McMaster, 2006). One of the few such studies (Cantrell & Callaway, 2008) included 78 middle and high school teachers from three districts and six schools in a southeastern state who participated in a content literacy project. During the course of the project, the teachers attended an introductory summer institute and then received monthly onsite coaching visits. The researchers found that teachers implemented the program differently, depending on their sense of general, personal, and collective efficacy. Teachers who implemented the program with fidelity as measured by frequent rubric-based observation (high implementers) demonstrated higher levels of efficacy. Teachers who failed to implement the program with fidelity or at all (low implementers) demonstrated lower levels of efficacy. Where both high and low implementers had positive perceptions of the program, teachers with higher

efficacy exhibited resilience and persistence when faced with barriers associated with implementation of the program.

Given that self-efficacy may be specific to both instructional task and context (Tschannen-Moran et al., 1998), continued efficacy research is needed at the middle school level, as teachers' personal efficacy beliefs in skills with which they are already comfortable may differ from their belief in skills and content areas in which they have little or no experience. Further, their personal efficacy beliefs may vary from one group of students to another (Tschannen-Moran et al., 1998).

Self-efficacy and special education teacher experience. Many benefits are associated with high self-efficacy in teachers, including special education teachers. Special education teachers who reported stronger rates of self-efficacy were found to be more organized and engaged in their planning and instruction (Allinder, 1994; Coladarci & Breton, 1997). Teacher confidence also is positively correlated with higher rates of student achievement (Poulou & Norwich, 2002) and overall quality of teaching. Teachers who exhibit high degrees of efficacy are not only less critical of their students, but are more willing and able to cope with student emotional and behavioral problems (Poulou & Norwich, 2002).

Self-efficacy ratings have not yet been significantly linked to special education teacher attrition and retention (Billingsley, 2004), yet teachers who stay in the field report high levels of perceived effectiveness (Martin, Dowson, 2009; Morvant, Gersten, Gillman, Keating, & Blake, 1995; Ndoye, Imig, Parker, 2010; Skaalvik & Skaalvik, 2011). Given the positive impact of teacher self-efficacy on these factors, it is essential to identify constructs that positively influence teacher efficacy (Caprara et al., 2003), especially in a high-need area, such as special education in hard-to-staff middle schools.

Self-efficacy and education change. Teacher efficacy was established as an important variable in education change as early as the 1970s (Berman & McLaughlin, 1977). In one of the first studies of its kind by the RAND Corporation, researchers found that teachers who perceived that they could influence student achievement despite socioeconomic challenges were more effective at raising student achievement scores (Berman & McLaughlin, 1977). In addition to the groundbreaking research of the 1970s, multiple peer-reviewed studies have indicated that self-efficacy and factors that influence self-efficacy have the potential to motivate teachers to adopt new teaching strategies and raise student achievement (Cho, Wehmeyer, & Kingston, 2013; Maschi, Wells, Yoder Slater, MacMillan, & Ristow, 2013; Sanden, 2012; Stein & Wang, 1988; Stevens, Harris, Aguirre-Munoz, & Cobbs, 2009)

Resilience and commitment. Resilience and commitment are strongly linked to teacher efficacy and an individual's confidence that he or she will be able to teach children effectively (Yost, 2006). Resilience can be defined as:

The capacity to continue to “bounce back” to recover strengths or spirit quickly and efficiently in the face of adversity, is closely allied to a strong sense of vocation, self-efficacy and motivation to teach, which are fundamental to sustaining a commitment to promoting achievement in all aspects of students' lives. (Day & Gu, 2010 p. 123)

Resiliency describes teachers who are able to overcome challenges and remain in the field of education. Resilient teachers display the following five characteristics:

(a) relationships (mentoring programs, administrative and parental support); (b) career competence and skills; (c) personal ownership of careers (ability to solve problems, set goals and help students); (d) sense of accomplishment (experiencing success); and (e) sense of humor. (Yost, 2006, pp. 59–60)

Factors of resiliency and persistence are present in teachers who remain in the field of education, as well as those who choose to transfer to other schools. In comparison to teachers who leave the profession altogether, teachers who exhibit these characteristics searched for schools that foster effective teaching, i.e., teaching that raises student achievement as indicated by value-added student achievement data (Johnson & NEA, 2006).

Resilience is often paired with commitment. Commitment includes a belief in the organization's goals and vision, a willingness to put forth effort for that organization, and a desire to remain with the organization (Mowday, Porter, & Steers, as cited by Billingsley, 2004). Teachers who possess higher levels of resilience and commitment increase student achievement and are more likely to stay in the field (Miller et al., 1999; Sammons et al., 2007). Given that sustaining the resilience and commitment of teachers may be a factor in reducing teacher turnover (Sammons et al., 2007), practices and systems that may contribute to teacher resilience and commitment should be explored.

Job satisfaction. Job satisfaction can be defined as the fulfillment that one experiences from his or her daily activities at work (Klassen et al., 2010). Job satisfaction is important because teachers who report job satisfaction display higher levels of motivation, commitment, and performance at work (Judge, Thoresen, Bono, & Patton 2001; Klassen et al., 2010). Multiple studies indicated that teachers' high levels of job satisfaction correlate with increased student achievement and a positive organizational climate (Caprara, Barbaranelli, Steca, & Malone, 2006; Zembylas & Papanastasiou, 2005). Teachers are more likely to stay in their field (Stempien & Loeb, 2002), and they report lower levels of stress, anxiety, and burnout (Caprara et al., 2006). Job dissatisfaction is associated with poor student achievement and teacher attrition (Csikzentmihalyi & McCormack, 1986; Johnson, Kraft, & Papay, 2012).

Both special and general education teachers report improved job satisfaction when their school provides supportive administrative and teacher relationships, reduced stress, clear roles and responsibilities, and avenues of professional support (Billingsley, 2004). Increasing middle school special education teacher job satisfaction may serve as a strategy to fight attrition, as there is a strong link between teacher job satisfaction and intent to stay in the field (Billingsley, 2004). Given the positive correlations of teacher job satisfaction to retention, student achievement, and other positive outcomes, further studies of systems and practices within hard-to-staff schools that may contribute to teacher job satisfaction should be explored.

Domains of self-efficacy. Researchers have identified three areas of teacher self-efficacy, derived from Tschannen-Moran and Wolfolk Hoy's (2001) measure, the Teacher Sense of Efficacy Scale (TSES; formerly referred to as the Ohio State Teacher Efficacy Scale). The three areas are classroom management, instructional practice, and student engagement, of which teachers may have differing levels of self-efficacy. For instance, teachers may have a strong sense of efficacy in classroom management but feel less efficacious in their core content knowledge, which would diminish their confidence in their instructional practice. As a further example, teachers may have great confidence in their subject matter expertise but feel unable to engage their students in high-level science or math work. Social-cognitive theory posits that these TSES sub-domains are influenced by mastery experiences, vicarious experiences, verbal or social persuasion, and emotional/psychological states (Tschannen-Moran et al., 1998).

Mastery experience. Mastery experience refers to the sense of efficacy that results from performing a task successfully. According to Bandura (1997), mastery experience may be the most important influence on self-efficacy. If a teacher perceives that his or her efforts have been

successful, this interpretation of past performance will guide future efficacy (Tschannen-Moran & Wolfolk Hoy, 2007).

In a quasi-experimental study of 93 primary teachers in nine schools, participants completed pre- and post-surveys related to their self-efficacy for implementing a literacy instructional strategy (Tschannen-Moran & Wolfolk Hoy, 2007). Participants were randomly placed in four groups, with each group's receiving increasing levels of efficacy-building input. For example, the first group received only a quick overview of the new strategies in an in-service setting, while the last group received opportunities for practice and mastery experience, ongoing support, and development and instructional coaching.

Teachers who participated in JEPD, which included ample mastery experience via ongoing support, development, and follow-up instructional coaching, showed the greatest increase in their sense of self-efficacy. Teachers who participated in only a limited planning and modeling session actually showed a decrease in their sense of self-efficacy for teacher literacy strategies to their students as compared to before the start of the program and in comparison with the other groups of teachers in the study. These teachers were not given the appropriate opportunities for mastery experience and, thus, their self-efficacy was hindered in relation to the new strategy being introduced. Teachers require ample practice and mastery experience in addition to the other domains of efficacy input.

Vicarious experience. Vicarious experience promotes efficacy by observing another individual's success at performing a task. The closer the observer judges himself or herself to the model, the more credible the model becomes. The observer will then apply judgments to his or her own capabilities based on his or her perception of the efficacy of the model (Wolfolk Hoy, & Burke-Spero, 2005).

Verbal or social persuasion. Persuasion includes praise, encouragement, feedback, norms, and collegial support and may be effective at increasing efficacy in the short term. In addition, the credibility and trustworthiness of the person who gives praise can affect how much of an influence this type of persuasion has on teacher self-efficacy (Tschannen-Moran & Wolfolk Hoy, 2007). For example, if a teacher respects an administrator and views him or her as credible, the feedback from that source will have a greater influence than will feedback from an administrator who is not perceived as credible. Verbal and social persuasion require relationship building on the part of the persuader with the person(s) whom he or she wishes to persuade. This concept is highlighted by coaching models that emphasize the need for coaches to build a relationship with the recipients of their services.

Emotional/psychological states. The final source of self-efficacy comes from the emotional and psychological states that teachers may experience. Some may find the emotional and psychological states induced by teaching energizing, while others may experience anxiety. This source of self-efficacy is moderated by the cognitive processing strategy of the teacher who experiences these emotions. Emotional and psychological states are combined with the other three other domains of influence that affect a teacher's self-efficacy (Wolfolk Hoy & Burke-Spero, 2005).

Instructional Coaching

Adult learning theory. Notable teachers throughout history, including Confucius, the Hebrew prophets, and Plato of ancient Greece, “perceived learning to be a process of mental inquiry, not passive reception of transmitted content” (Knowles & Holton, 2005, p. 35). For this reason, these famous teachers engaged their adult learners through inquiry-based strategies, such

as case studies in ancient China, Socratic dialogues in ancient Greece, and the Roman tradition of debate (Knowles & Holton, 2005).

Lindeman (1926) laid the original foundation for a systematic approach to adult learning, which proves useful even today, by establishing that adults become motivated to learn as they discover interests that make learning worthwhile. These interests should serve as the platform from which the instructor launches the learning experience. Further, adults have a life-centered orientation to learning; therefore, the subject matter should be based on real-life situations. Adults need to analyze their life and classroom experiences to effectively learn, retain, and apply new skills and strategies.

Professional development: The transition to JEPD. The traditional in-service model of professional development for teachers includes teachers' taking time away from the classroom or using their summer break to travel to workshops to receive lecture-based training on the most up-to-date teaching practices in their content area. However, this traditional model of professional development has a negative reputation for being "short term, driven by an external agenda, and disconnected from classroom practice" (Johnson & NEA, 2006, p. 13). Further, the in-service model has been criticized, beginning in the 1980s, for being decontextualized from on-the-job practice, disconnected from teachers' prior experience and perceived needs, and lacking follow-through support for on-the-job implementation (Fullan, 1990).

The American Federation of Teachers (2002) has defined professional development as an individual and collective process to examine and improve instructional practice. It is intended to empower teachers "to make complex decisions; to identify and solve problems; and to connect theory, practice, and student outcomes" (American Federation of Teachers, 2002, p. 4). As early as the 1970s, educators have expressed dissatisfaction with the workshop form of professional

development and called for long-term, job-embedded approaches (Showers, Joyce, & Bennett, 1987). Joyce and Showers (1995) led the field in redefining professional development as a process intended “to create the conditions under which sufficient levels of knowledge and skill are developed to sustain practice and to provide the conditions that support practice until executive control has been achieved and transfer [of the newly learned knowledge skills to the teacher’s customary routines] has occurred” (p. 84). Their research demonstrated that teacher attendance at coaching sessions increased teacher implementation of new instructional approaches (Showers & Joyce, 1996).

Further, Joyce and Showers (1981) identified that, when teachers are presented with the underlying theory behind a new instructional practice, are given opportunities to practice the new skill, receive feedback, and are able to observe demonstrations of that new skill, they are able to develop a cognitive understanding that allows them to translate the research into practice in a meaningful and effective way. Showers et al. discovered that teachers are more likely to integrate new instructional strategies into their repertoire if they are provided with peer or expert coaching. They characterized coaching as “an observation and feedback cycle for the purpose of integrating mastered skills and strategies into a curriculum, a set of instructional goals, a time span, and a personal teaching style” (Joyce & Showers, 1981, p. 170). Additionally, they described coaching as a “continuous problem solving endeavor” (p. 170), as teachers might need to practice a complex, newly learned skill and receive feedback up to 25 times before attaining the level of understanding necessary for transfer.

More recent studies continue to confirm and elaborate upon the groundwork laid by Joyce and Showers in the 1980s. In a five-year study of professional development in California schools, Fullan and Knight (2011) measured whether teachers who participate in a professional

development program implemented the new strategies into their practice. They found that only 10% of teachers applied the new skills when given a description of the skill to be applied, and another 2–3% when given time to practice the skill during the training. However, once instructional coaching was added, 95% of the teachers involved in the professional development implemented the new strategies in their classrooms. In a separate study in which 51 teachers attended a routine planning and teaching after-school workshop, half of the participants were randomly selected to receive coaching, and half did not. Evidence of the specific strategy was visible in 90% of the coached teachers' classrooms, while visible in only 30% of the un-coached group.

Due to its potential to transfer research into practice, JEPD through instructional coaching had been recognized as a potential element for school reform during the 1990s (Carnine, 1997; Darling-Hammond & Sykes, 1999). Professional growth in teachers requires change in teacher practice, which often encounters resistance, as fundamental beliefs also must be altered (Knight, 2007). This resistance to change can potentially be mediated by the ongoing, job-embedded, peer-to-peer support provided by instructional coaches (Knight, 2007), who, consequently, have the potential to act as both agents of system reform and leaders of change (Fullan & Knight, 2011). Coaching may be especially effective in influencing aspects of teaching that are most difficult to change, as teachers are more inclined to shift the content of their instruction than their pedagogical approaches (Coburn, Pearson, & Woulfin, 2010; Diamond, 2007; Firestone & Mayrowetz, 2000; Smith, 2000).

In a qualitative case study by Coburn and Woulfin (2012) of five elementary school teachers, two literacy coaches, an assistant principal, and a principal, the researchers analyzed the implementation of a new Reading First initiative. The study began in 2002, before the

program was implemented, and lasted through 2004, the first few years of implementation. The study demonstrated that coaches were influential in changing teacher pedagogy. Teachers accommodated 44% of messages they encountered related to pedagogy when they worked on them with a coach, compared to only 16% related to pedagogy when the coach was not involved (Coburn & Woulfin, 2012). Teachers were more likely to make substantial changes in their classroom practice when they learned about the policy message regarding the Reading First Initiative from a coach than from other sources, such as memoranda, faculty meetings, and outside training (Coburn & Woulfin, 2012). Coaches were able to influence teachers by helping them learn and integrate new approaches into their classroom and by counseling them on which aspects of the policy to focus on and which aspects to ignore (Coburn & Woulfin, 2012).

Further supporting the potential for translation from research to practice through instructional coaching, Sailors and Price (2010) demonstrated that an intensive model of coaching led to an increased use of a specific model for intentional comprehension instruction on the part of teachers. Forty-four Texas elementary and middle schoolteachers were placed into two groups, experiencing two different models of professional development. The first group, labeled the partial intervention group, attended a two-day in-service without follow-up support. The second group, labeled the full intervention group, received the same workshop with ongoing in-class support from a reading coach. A group reading assessment and diagnostic evaluation was used to measure student reading achievement at the beginning and end of the study. The Comprehension Instruction Observation Protocol System was used to measure teacher implementation of the cognitive reading instruction program with students. Teachers in the full intervention group outperformed the partial intervention teachers across measures. The study confirmed, though on a small scale, that coaching is a viable option to increase teacher

implementation of target instructional strategies and to increase student reading achievement (Sailors & Price, 2010).

Since Fullan's critique of the in-service model of professional development in the 1990s, professional development has become increasingly school based and focused on effective teaching to support student learning goals (Johnson & NEA, 2006). Professional development also has become more coordinated to include peer observation, off-site training, administrator walk-throughs, and ongoing learning communities, which has energized many practitioners (McLaughlin & Talbert, 2001). Teachers in schools that have adopted such a model reported experiencing higher levels of professional growth due to this collaboration and goal-oriented approach (McLaughlin & Talbert, 2001).

Teachers are more likely to welcome professional development that focuses on the needs of their students and content-area instruction (Johnson & NEA, 2006). Further, professional development is more effective when opportunities for practice and on-the-job follow-through are embedded throughout the teacher's workday (Garet, Porter, Desimone, Birman, & Yoon, 2001; Johnson & NEA, 2006; National Partnership for Excellence and Accountability in Teaching, 1998). Needs-based, small-group, and subject-specific training is less cost effective than is mass training but has proven to be more relevant to participant needs (Duncombe & Armour, 2004; Rhodes & Beneicke, 2003). Effective professional development enhances teacher self-efficacy by giving teachers the opportunity to practice new skills and receive just-in-time feedback that helps them to observe their impact on student achievement (Ingvarson, Meiers, & Beavis, 2005; Joyce & Showers, 1995).

As part of a JEPD model, instructional coaching may encourage teachers to take a metacognitive approach, associated with effective teachers, to their practice (Ingvarson et al.,

2005; Joyce & Showers, 1995). Coaching refers to a model of JEPD in which teachers and specialists provide support and guidance to their peer colleagues (Hasbrouck & Denton, 2007; Neufeld & Roper, 2003). Moreover, coaching is often an element of school reform initiatives and can be viewed as a way to support high-quality instruction in core academic areas (Hasbrouck & Denton, 2007).

Most coaches are assigned to work with teachers in the areas of math and literacy (Bean, Swan, & Knaub, 2003). The University of Kansas Center for Research on Learning (Knight, 2009) reported that, in a professional development program where almost 80% of the participants reported acquisition of new knowledge and skills, only approximately 10% of the participants could be observed applying the new techniques in the classroom setting. However, once instructional coaching was added to the program, almost 90% of the teachers could be observed applying the new knowledge and skills. This result indicates that teachers not only prefer ongoing JEPD to the traditional in-service model of training, but also that they are more likely to implement strategies in their classrooms if they are provided with instructional coaching.

The long-term mentorship provided by instructional coaches may develop a framework for “the acquisition and internalization of a metacognitive teaching mental model” (Lovett et al., 2008, p. 1087). This level of mentorship also may help schools to retain their effective teachers. According to a national study of irreplaceables (the top 15% of effective teachers in the nation as measured by standardized student achievement scores), effective teachers are more likely to stay in the field if a campus leader: “(a) provided [them] with regular, positive feedback; (b) helped identify areas of development; and (c) gave critical feedback about performance informally” (TNTP, 2012, p. 16). Instructional coaching may, therefore, be one option to help retain special education teachers at hard-to-staff middle schools.

Instructional coaching has many potential benefits. It emphasizes student learning; engages adult learners in problem solving, discussion, role-play, simulation, and application; and is ongoing (Hunzicker, 2011). In Goker's (2006) mixed-methods study of 32 student teachers, post-treatment results demonstrated statistically significant differences in the experimental peer coaching group for all variables related to their implementation of new instructional practices and their sense of efficacy in implementing those strategies. This study, therefore, implicates peer coaching as a viable option to enhance teacher self-efficacy and implementation of instructional skills.

Instructional coaching also may support teachers and campuses with policy initiatives, such as data-driven decision making (DDDM; Marsh, Sloan McCombs, & Martorell, 2010). In a mixed-methods study in which Marsh et al. investigated the convergence of instructional coaching and DDDM, 113 Florida schools participated in a statewide reading initiative, which included instructional coaching paired with DDDM. The researchers measured the perceived effects of instructional coaching by the teachers involved in the program as well as tracking student achievement and demographic data and found that, though DDDM support was only one among many coaching activities, data analysis support through instructional coaching was significantly associated with both perceived instructional improvements and higher actual student achievement (Marsh et al., 2010).

Coaching also may be used to support schools in such policy initiatives as the inclusion of students with significant disabilities in core-curriculum, general-education classrooms. Strieker et al. (2012) explored the efficacy of a JEPD program at increasing the achievement of students with disabilities in the general education setting at six urban, suburban, and rural elementary and middle schools in Georgia over the course of three years. The researchers

measured the percentage of time that students with disabilities were taught in general education with and without co-teachers and the percentage of time that students were taught in the self-contained special education setting (isolated from their general education peers in a resource or pull-out type class). An analysis of the data showed that statistically significant increases occurred in the percentage of time that students with disabilities were taught in the general education setting in each of the two years of the JEPD initiative (Strieker et al., 2012).

In addition to being related to increased implementation of school policy initiatives, teacher self-efficacy, job-satisfaction, critical thinking, collaboration, and well-being at work, instructional coaching also may be related to increases in student achievement as measured by test scores and teacher perception of improved school climates, therefore meriting further investigation at the secondary level (Bean, Draper, Hall, Vandermolen, & Zigmond, 2010). Despite the increasing use of coaching in school change initiatives, relatively little empirical data exists on the effectiveness of coaching and its relationship to the quality of instruction or changes in student achievement (Neufeld & Roper, 2003).

However, the limited studies on coaching that do exist indicate a positive effect on student achievement. For example, in a study of 20 Reading First coaches in 22 elementary schools in Pennsylvania (Bean et al., 2010), student achievement data indicated that fewer students were labeled in the at-risk category on a standardized assessment after a reading intervention at the more highly coached schools, as measured by student achievement scores before and after intervention on the Pennsylvania System of School Assessment and Dynamic Indicators of Basic Early Literacy Skills. A larger study of 116 high-poverty schools in Georgia that included over 100 instructional coaches and over 2,000 teachers over the course of three school years demonstrated significant gains in student literacy learning (Walpole, McKenna,

Uribe-Zarain, & Lamitina, 2010). On average, children in participating schools in the first year of implementation made 16% greater learning gains than observed during the baseline, no-treatment period. In the second year, children learned 28% more, and, in the third year, they had learned 32% more than during the baseline period (Walpole et al., 2010).

Coaching at the middle school level. Existing research regarding secondary (middle school and high school) instructional coaching supports that teachers who experience coaching not only implement new strategies but may have an increased sense of self-efficacy about their teaching practice as well (Fullan & Knight, 2011). In a qualitative, constructivist case study, Gross (2010) interviewed 15 high school teachers who worked closely with coaches on a literacy initiative in Pennsylvania and found that teachers perceived an improvement in their instructional practice, efficacy, and student outcomes as a result of the coaching. Further, teachers involved in the study reported appreciation of the opportunity to collaborate on dynamic approaches to student engagement (Gross, 2010). Most teachers in the study also reported higher satisfaction with on-campus coaching than with off-site literacy workshops (Gross, 2010). Teachers may thus be more satisfied with ongoing JEPD opportunities than with the traditional in-service model of off-site workshops and training.

Several teachers in Gross's (2010) study were overwhelmed by other time constraints and had difficulty making time and finding the energy for collaboration and lesson planning, which may be indicative of a challenge unique to the secondary school setting. Teachers reported that they struggled to balance their schedules when teaching five classes per day and to manage the pressure they felt from administrators to prepare their students for mandatory state testing. Coaches also were assigned classes with high numbers of special education students and then asked by administration to administer and grade testing programs, which further limited

availability for collaboration. The results of Gross's study indicated that middle school and high school culture may influence the success or failure of coaching initiatives; this merits further study. The results also indicated a lack of clarity in the role of secondary instructional coaches (Gross, 2010).

Additional studies have confirmed this lack of role clarity. In a case study, Stevens (2011) collected the artifacts of all aspects of a coach's work, interviewed the coach, and observed her interactions with administration and staff. The results, which indicated a lack of clarity about the coach's role, supported those of Blarney, Meyer, and Walpole's (2008) national survey of middle and high school literacy coaches, which indicated a lack of clarity with regard to role responsibilities. In response to these findings, Blarney et al. suggested the need for qualitative and quantitative studies to establish a clear description of the roles and responsibilities of secondary coaches, especially with regard to how coach time is used on the campus. Stevens suggested that research should focus primarily on the roles and responsibilities of instructional coaches as a means to provide evidence about effective coaching models and programs.

Models of coaching. Multiple labels across the literature describe similar roles, including math and literacy coaches, cognitive coaches, instructional coaches, and specialists or facilitators (Sturtevant, 2003). However, three distinct models of coaching appear dominant in today's research: literacy coaching, instructional coaching, and cognitive coaching (Knight, 2007). This study focuses on instructional coaching, describing coaches who "partner with teachers to help them incorporate research-based instructional practices into their teaching so that students will learn more effectively" (Knight, 2009, p. 2). This type of coaching is job embedded and, therefore, directly applicable to professional practice.

Instructional coaching is grounded in the partnership between the instructional coach and the teacher, and each is an equal collaborator and uses reflective conversations to guide their working together. They have a peer relationship rather than a hierarchical one; the coach does not appraise or evaluate the teacher. Coaching is differentiated and ongoing, lasting anywhere from several days to several months. The coach maintains a non-judgmental and confidential stance, ensuring both parties the freedom to speak openly about both strengths and weaknesses. It is essential that this confidentiality be maintained so that the coach's records are not used by appraisers and administrators to evaluate the teacher's performance, as this would jeopardize the peer relationship between the coach and teacher.

Further, throughout the coaching work, the coaches must maintain respectful communication by "listening respectfully, asking thought-provoking, open-ended questions," and being "energizing, encouraging, practical and honest" (Knight, 2009, pp. 2–3). Instructional coaching places an emphasis on collaboration toward improving teacher practice rather than the coach's providing solutions for challenges that the teacher may be experiencing.

The instructional coaching model reviewed for this study is a multi-faceted position. The model requires a partnership between the coach and building administration to facilitate access to teachers and resources on a campus. Next, coaches build peer relationships with teachers to gain trust and find the right starting point. This launches a cycle of collaboration with and support for teachers through observation and feedback, modeling of instructional strategies, and reflection around student work generated from the implementation of coached practices (Knight, 2007). More specifically, the district level coach collaborates with the teacher on the individual school site to create a professional goal, based on student achievement data from the teacher, and leads the teacher in the direction of being objective about his or her own teaching. The goal that the

teacher sets is measurable and has a specific timeline. The coach and the teacher then collaborate on the implementation of a high-leverage strategy that is intended to achieve the desired student outcomes.

The instructional coach may model the strategy with the teacher during the teacher's conference period or during an actual class period with his or her students. Next, the teacher practices implementing the strategy while the instructional coach observes and provides feedback meant to grow the teacher's practice. If the two agree to do so, the instructional coach may digitally record the strategy for the reflection process. In the next step, the teacher and instructional coach hold themselves accountable by scrutinizing their actions and determining whether they should continue on the same path or whether teacher and coach behavior should be altered. The two continue to meet and reflect on the strategy and review student data to determine whether the desired objective has been achieved. This reflection leads to either the setting of a new goal and beginning a new cycle or revisiting a failed objective and attempting the cycle again with a different strategy. Coaches must maintain a relationship of support and reassurance with their teachers while continuously encouraging them to refine their practice to align with the research-based practices that will improve student achievement (Knight, 2007).

Summary

This chapter presented a review of the literature and incorporated three main areas of research. It began with an examination of the retention literature and the challenges faced by public schools today. This first section included literature on retention of special education teachers both nationally and in the state of Texas. Next, this study presented research on effective teachers, focusing on the self-efficacy of special education teachers. Finally, the literature related to instructional coaching was examined. The intersection of all of the above-

mentioned areas, i.e., retention of special education teachers, self-efficacy, and instructional coaching, was examined to explore how these constructs might be related in hard-to-staff schools in a large urban school district in Texas.

A search for the intersection of the terms *special education teacher*, *retention*, *self-efficacy*, and *instructional coaching* in the EBSCO host and ERIC databases yielded no results. This literature review is, therefore, exhaustive in that there are no studies that explore the intersection of the retention of special education teachers, teacher self-efficacy, and instructional coaching. Thus, the current study seeks to add to the literature by investigating the triangulation of these constructs.

Chapter 3: Methodology

This chapter presents the mixed-methods approach that was used to collect and analyze data in this study. Quantitative survey methods were used to collect teacher self-efficacy data on the instructional coaching received by special education teachers in hard-to-staff middle schools in a large urban school district in southeast Texas. Survey participants were given the opportunity to participate in focus group interviews to ensure a qualitative component that reflects the rich and varied viewpoints of the participants. The survey data were analyzed to determine whether a relationship exists between teacher frequency of instructional coaching and teacher self-efficacy. The data were further analyzed to determine the relationship between the frequency of coaching and teacher retention. Teacher retention was defined for the purposes of this study as a teacher's intent to stay in the field of middle school special education in a hard-to-staff school for five years or more. These quantitative results were triangulated with those of the (qualitative) focus group.

Research Design

For this study, the researcher relied on a mixed-methods approach to generate insight into the experience of middle school special education teachers in hard-to-staff schools and the relationship between instructional coaching and teacher self-efficacy. The mixed-methods approach is considered more complex than are qualitative or quantitative research methods alone (Caruth, 2013). Qualitative approaches are used to generate a hypothesis, while quantitative approaches are traditionally used to test a hypothesis. Further, qualitative research fosters “a greater depth of understanding of the study,” while quantitative research supports “better objectivity and generalizability” (Caruth, 2013, pp. 112–113). The intent of a mixed-methods approach, therefore, is to combine the strengths and minimize the weaknesses of the two

approaches (Creswell, 2012; Gall, Gall, & Borg, 2007). For the purposes of this study, the mixed-methods approach was used to (a) provide an exploration of the phenomena being studied, (b) capture information that might be missed using one method or the other, and (c) generate questions for future research (Caruth, 2013). The researcher triangulated the quantitative survey data with the data from the (qualitative) focus groups to provide a richer understanding of middle school special education teacher self-efficacy as it relates to instructional coaching (Venkatesh, Brown, & Bala, 2013).

Further, as this is a mixed-methods study, the researcher found the post-positivistic approach appropriate for combining qualitative and quantitative research designs. Post-positivism is described by Creswell (2007) as a belief system in which inquiry is viewed as “a series of logically related steps, [belief] in multiple perspectives from participants rather than a single reality, and [belief] in rigorous methods of qualitative data collection and analysis” (p. 20). In the spirit of post-positivism, this mixed-methods approach was written in a structure that resembles a traditional quantitative approach and employed “multiple levels of data analysis and . . . validity approaches” (p. 20).

Procedure

Principals of 22 improvement-required and hard-to-staff middle schools who had instructional coaches assigned to them in a large urban school district in southeast Texas were approached by the researcher and asked to sign a permission letter (Appendix C), granting the researcher permission to distribute surveys via e-mail to special education teachers and to contact volunteers for confidential follow-up focus group interviews. Improvement-required schools describe a criteria mandated by the State’s education agency for schools performing below a minimum requirement. A recruitment e-mail (Appendix D) with a link to the online survey

(Appendix E) that contained three sections was sent to all special education teachers at those seven middle schools at which the principal granted permission for the study to proceed. The three sections of the survey included an electronic informed consent agreement, demographic questions, and the validated TSES short form (Tschannen-Moran & Wolfolk Hoy, 2001).

Traditional quantitative analysis was used in the design and implementation of the survey portion of this study. During the quantitative analysis, teachers were asked to complete a survey, which included the TSES as well as questions related to retention and their experience with instructional coaching. The participants of the study had the option of returning the TSES on a voluntary basis. Participants also had the option of e-mailing their contact information if they were interested in taking part in a follow-up focus group interview. Participants who volunteered their contact information were contacted to participate in the follow-up interviews, during which they responded to qualitative questions regarding their work with instructional coaches and their thoughts about their future as a special education teacher in a middle school.

Restatement of Research Questions

1. How do special education teachers in hard-to-staff middle schools define instructional coaching?
2. How does the frequency of coaching of special education middle school teachers relate to teacher self-efficacy?
3. What factors influence the career plans of special education middle school teachers in hard-to-staff schools?

Data Sources and Participants

Middle school special education teachers (MSSETs) in a large urban school district in Texas were selected to receive the survey via email as well an invitation to participate in a

follow-up focus group interview. The schools chosen for this study were either in the *Schools in Need of Improvement* (SIP) category for at least three consecutive years, including the 2012–2013 academic school year for failure to meet the measure of AYP required by the NCLB Act and monitored by the TEA or met the criteria for identification as a hard-to-staff school. These schools are considered *hard-to-staff* for the purpose of this study because they are especially vulnerable to losing teachers to the district’s greater than 19% turnover rate. According to the district’s hiring website, at the time of the study, over half of the vacancies in the school district were at these hard-to-staff schools. The district offered hiring incentives for teachers from other states to fill these vacancies, including ease of transferring credentials and higher salaries than offered by districts in which they were recruiting. For the purposes of this study, MSSETs were defined as teachers who serve students with special needs between sixth and eighth grades in a SIP school or hard-to-staff school during the 2013–2014 school year. MSSETs were highly qualified as defined by the TEA (TEA, Division of IDEA Coordination, 2011) by meeting the following guidelines: possessed a bachelor’s degree or higher, possessed a full Texas special education teaching credential, and demonstrated subject competency in each core subject area taught by passing the appropriate state approved exam or completing an academic major, a graduate degree, coursework equivalent to an academic major, or advanced certification or credentialing.

MSSETs included in this study served in one of two categories for at least two years, i.e., those who served students with high-incidence disabilities and those two served students with low-incidence disabilities. Finally, to be chosen to participate in the study, the MSSET had to have received JEPD through an instructional coach at his or her school site for the 2012–2013 school year and the 2013–2014 school year, having served at least two years at a SIP or hard-to-

staff school receiving JEPD through instructional coaches managed through the district's central office.

Research site. According to the demographic information reported by the TEA (2014), the large urban school district selected for this study had 203,354 students, 11,463 teachers and 276 schools with an annual budget of \$1.58 billion and a per-pupil expenditure of \$7,052 (TEA, 2014). At the time of the study, the graduation rate was 78.5%, and the dropout rate was at an all-time low of 11.8%. With regard to race, 25% of the enrolled students were African American, 63% were Hispanic, 8% were Caucasian, 3% were Asian or Pacific Islander, and 1% of students identified from other ethnicities (TEA, 2014). Further, 39,247 students were enrolled in middle school (19.3%) at the time of the study, 15,998 students (7.9%) were identified as having special needs and served by the office of special education, 30% of students were identified as Limited English Proficient (LEP), and 80% of students qualified for free and reduced-price lunch, a poverty indicator. In addition, 50% of students in the district performed at or above grade level in reading as measured by the Stanford and Aprenda Norm-Referenced Test, and 61% performed at or above grade level in math (TEA, 2014). Only 37% of schools met the AYP measure determined by the NCLB Act of 2001 and monitored by the TEA.

Role of the researcher. The researcher served as a middle school special education instructional coach during the course of this study. This allowed the researcher to be a participant observer (Patton, 2002) in the implementation of the instructional coaching program. The researcher's role also allowed her enhanced access to potential participants in the study and mobility within the district to organize interviews and recruit participants. However, as the researcher worked directly with some of the teachers who volunteered to participate in this study, a

research assistant and external reviewer were employed to minimize bias and ensure voluntary participation on the part of the research subjects.

Participants who volunteered to participate in the follow-up focus group interviews were interviewed solely by a research assistant to minimize the potential for researcher bias during the course of the qualitative analysis. Bias also may have existed in the course of analyzing the data included in the study due to the researcher's vested interest in the JEPD program, by which she was employed at the time of the study. To mitigate this potential for bias in the analysis of the qualitative results, an external reviewer was employed.

Data Collection Instruments and Methods

Both qualitative and quantitative data collection instruments were employed in this mixed-methods study. The following sections provide a description of the instruments and methods.

Quantitative instrument. The TSES short form consists of 12 questions regarding how well teachers are able to perform various job responsibilities, answered with a 9-point Likert scale that ranges from 1 = nothing to 9 = a great deal (Appendix F). Tschannen-Moran and Wolfolk Hoy (2001) developed and established construct validity for the TSES in 2001 and granted public permission for the use of the TSES for academic research purposes (Appendix G). This instrument has been used to test teacher self-efficacy in multiple studies in the past decade in the United States and was further validated in studies in five other countries by Klassen et al. (2010). The quantitative portion of the study involved an anonymous online survey, completed on a voluntary basis and, therefore, was exempt from IRB consent procedures. SurveyMonkey was used to distribute the survey and collect the results. SPSS software was used to extract data

from the compiled data and analyze the results, including measures of central tendency and a *t*-test to compare the frequency table of coaching with TSES scores.

Factor analysis. The developers found three moderately correlated factors of teacher self-efficacy that vary slightly, depending upon how participants answer questions. These factors are efficacy in student engagement, instructional practice, and classroom management. The TSES has two forms, a 24-item scale and a 12-item short form. The 24-item scale is recommended in the study of pre-service teachers, as the factor structure is less distinct with this sub-population. This study included educators who have been in the classroom for two years or more and excluded pre-service teachers, making the short form appropriate. To determine the individual factors, the researcher used the following subscale scores: Teacher efficacy in student engagement was measured in items 2, 3, 4, and 11; teacher efficacy related to instructional strategies was measured in items 5, 9, 10, and 12; and classroom management was measured by items 1, 6, 7, and 8 (Tschannen-Moran & Wolfolk Hoy, 2001).

Construct validity. Tschannen-Moran and Wolfolk Hoy (2001) established construct validity for the TSES by correlating it with existing measures across three separate studies. The TSES was found to be positively related to items on other scales of teacher efficacy, including the RAND scale, Personal Teaching Efficacy scale, and General Teaching Efficacy scale. The strongest correlations assessed personal teaching efficacy, and the weakest related to general teaching efficacy. The TSES was found to be valid and reliable as a tool to explore the construct of teacher efficacy and shown to overcome limitations of previous instruments to capture efficacy in relation to student thinking, creativity, and assessment strategies.

Reliability. The short-form reliability of the TSES has a mean reliability of 7.10 overall, with a standard deviation of .98 and an alpha correlation of .90. The reliability for the

engagement items has a mean of 7.20, an SD of 1.20, and an alpha of .90. The reliability for the instruction items has a mean of 7.30, an SD of 1.20, and an alpha of .86. The reliability for the management items has a mean of 6.70, an SD of 1.20, and an alpha of .86 (Tschannen-Moran & Wolfolk Hoy, 2001).

Qualitative analysis. Developing and implementing a qualitative interview protocol required the following stages: “(a) selecting the type of interview, (b) establishing ethical guidelines, (c) crafting the interview protocol, (d) conducting and recording the interview, (e) analyzing and summarizing the findings, and (f) reporting the findings” (Rabionet, 2011, p. 563). These five stages were used in the interview protocol development for the current study and are discussed as follows.

Selecting the type of interview. According to Creswell (2007), focus groups are advantageous when “the interaction among interviewees will likely yield the best information, when interviewees are similar and cooperative with each other, and when time to collect information is limited” (p. 133). Given that all of the participants who were interviewed during the course of study were middle school special education teachers, and researcher time was limited due to the nature of the mixed-methods research design, focus group interviews were selected for this study.

Further, focus group interviews were chosen as the qualitative analysis piece for this study because they “permit collection of richer, more multifaceted data in a cost-effective fashion” (Grim, Harmon, & Gromis, 2006, p. 522). Focus group interviews were used to implement the mixed-methods research design, which expanded upon the quantitative findings in the study. A focus group interview describes a qualitative research approach whereby interviewers interactively question a group of participants to test or generate a hypothesis

(Merton, Fiske, & Kendell, as cited in Grim et al., 2006). According to Merton et al. (as cited in Grim, et al., 2006), there are five characteristics of credible focus group interviews. These include:

(a) participant involvement in a shared concrete situation (shared experience), (b) conducting group interviews until no new information is obtained (topic saturation), (c) content analysis that leads to hypotheses (hypothesis testing), (d) use of an interview guide to test the hypotheses (question route), and (e) focus on the subjective experiences of the participants (subjective experiences). (p. 522)

The focus group protocol in this research piece was modeled from Grim et al.'s (2006) peer-reviewed study. Grim et al. refined the focus group process based on the work of Merton et al. (as cited in Grim et al., 2006) and conducted a study whereby they “investigated an innovative way to bridge this gap that incorporates quantitative techniques into a qualitative method, the ‘quanti-qualitative method (QQM)’” (Grim et al., 2006, p. 516). The researchers performed a series of three focus groups guided by the five characteristics noted above.

To identify the shared experience of participants, the researcher selected participants based on the qualification of their position as middle school special education teachers in improvement-required campuses for the 2013–2014 school year. Topic saturation was ensured by conducting interviews until no new information was likely to be obtained. An interview guide was used to establish a question route that addressed the research questions, but the researcher’s assistant maintained a qualitative approach by asking follow-up and probing questions, such as, *Tell me more about _____*, and, *Will you elaborate on _____?* The open-ended nature of the interview protocol encouraged the sharing of subjective experience by focus group participants.

Establishing ethical guidelines. Many ethical considerations exist for both quantitative and qualitative research studies. Those that potentially apply to this study are “informed consent procedures [and] . . . confidentiality toward participants, sponsors and colleagues” (Creswell, 2007, p. 141). The principal investigator worked with a research assistant, who conducted the interviews to both ensure objectivity and prevent research bias. The research assistant also was in place to ensure that participants’ responses were not compromised by their potential working relationship with the researcher. The researcher deleted participant identifiers, such as names and schools, from focus group interview transcripts and analysis. Further, the researcher gave all focus group participants a general description of the purpose of the study and an opportunity to agree to participate in the interview by signing an informed consent form. Participants had the option to decline to participate at any time during the course of the study.

Developing the interview protocol. Special consideration was taken in the design of the focus group interview question relating to teacher retention. Gold (1996) suggested broadening the definition of teacher retention by including “the concept of engagement or involvement in teaching” to explore the “corresponding commitment to teaching that needs to be a focus of retention, not simply retaining all teachers on the job” (p. 548). Developing a clearer picture of instructional coaching may be related to how teachers think about the future of their careers in middle school special education; therefore, the survey contains a question related to how long the respondent plans to stay in his or her current position. The researcher then followed up with focus group participants to capture middle school special education teachers’ perceptions of the structures that allow them to stay in the profession over time.

Billingsley (2004) recommended that researchers consider exploring teacher “time frames for leaving as well as different ideas about what leaving means (e.g., whether one plans to

leave teaching, a district or the teaching field altogether)” (p. 51). Researchers may consider multiple choice survey items that ask teachers about their intent to remain in their current position for the next school year, and then in five years (Westling & Whitten, 1996), which addresses short-term career intentions. Another option is to ask participants to “Please check which of the following comes closest to describing how long you plan to teach” (Cross & Billingsley, 1994, p. 413), then list spans of times up to retirement to address lifetime career intentions. Short-term plans will more likely be strongly related to attrition than will long-term plans, but both measures are appropriate, depending on the purpose of the study (Billingsley, 2004).

The researcher developed the questions for the focus group interviews (Appendix H) to corroborate participant responses on the online survey and expand on the middle school special education teacher experience with instructional coaching. Figure 1 shows the alignment of the interview questions to the three research questions that guide the study. These questions were peer reviewed and reconsidered by the dissertation committee and an expert panel of three doctoral students to ensure “credibility” and “transferability” (Creswell, 2007, p. 202) of the qualitative interview protocol. The final draft of questions and interview script (Appendix H) was revised to clarify wording, intent, and alignment with research questions.

<p>1. How do special education teachers in hard-to-staff middle schools define instructional coaching?</p>	<p>What is job-embedded professional development (JEPD)?</p> <p>Please describe your work with the instructional coach on your campus and in your classroom.</p> <p>What is your interaction with your instructional coach?</p>
<p>2. How does the frequency of coaching of special education middle school teachers relate to teacher self-efficacy?</p>	<p>Does JEPD make a difference in your practice? Yes/No. Can you explain?</p> <p>Did your instructional implementation change? In what ways?</p> <p>Did JEPD change the way you think about teaching?</p> <p>How do you define self-efficacy?</p> <p>Did JEPD affect your self-efficacy?</p> <p>Do you believe that there is a need for continued JEPD on your campus? Why or why not?</p>
<p>3. What factors influence the career plans of special education middle school teachers in hard-to-staff schools?</p>	<p>What are the major factors that influence your career plans?</p> <p>Do you plan to remain as a middle school special education teacher? Why or why not?</p> <p>Is there anything else you would like to share?</p>

Figure 1. Alignment of research questions and interview items.

Interview process and issues. Participants who provided their contact information via email were selected to participate in follow-up interviews. Before the interview, they were contacted by the research assistant and asked to review and sign the IRB consent form. Interviews were audio recorded for the purpose of transcription. All recordings were locked in a filing cabinet at the researcher's office when not in use and password-protected on the computer. All hard and soft copies of audio recordings were destroyed after the completion of the project to protect the confidentiality and anonymity of the participants. Participants were asked to read

through transcriptions and make any additions or strike out any remarks they chose. All identifiers were stripped from collected data, including school district name, school names, teacher names, student names, and coach names, so that participants cannot be identified by any of the information included in the study.

Data Analysis Plan

Both statistical analysis and descriptive statistics were examined to minimize confounding variables. Once TSES data were collected via the online survey, the researcher generated a TSES frequency table of results, using IBM SPSS software. This table indicates the frequency of responses according to the Likert scale used on the TSES short form. Once the frequency table was generated, the researcher determined per-question and overall mean and standard deviation results. A *t*-test was then run to compare the self-efficacy results of the two groups of teachers (those who received more than the mean reported frequency of coaching and those who received less). Any potential relationship between self-efficacy and coached vs. uncoached teachers was identified using a chi-square test to determine the significance of the difference, if any, between observed and expected data. A similar *t*-test was run that compared the projected retention rates of the two groups of teachers. A chi-square test was run to determine the goodness of fit between the observed and expected data.

Next, participants who volunteered their information were contacted to participate in the focus group interviews on each campus surveyed. Participants read the focus group informed consent form (Appendix I) and were given the opportunity to continue or decline their participation. To organize the data collected, the researcher followed the suggestions for phenomenological analysis and representation outlined by Creswell (2007). First, “a list of significant statements [that is] nonrepetitive and nonoverlapping” (p. 159) was developed by

both the researcher and an external reviewer to eliminate potential bias and ensure credibility. Next, the researcher grouped the significant statements into “larger units of information, called ‘meaning units’ or themes” (p. 159), and then included “textural description” and verbatim examples of “what” participants experienced (p. 159), which were externally reviewed for credibility as well. The researcher then provided “structural description” of “how” the coaching experience occurred (p. 159).

In qualitative research, the terms *validity* and *reliability* are viewed as joint constructs and can be referred to as *credibility*, *transferability*, and *trustworthiness* (Golafshani, 2003). This credibility depends upon the researcher (Golafshani, 2003) and, for the purposes of this study, refer to “stability of responses to multiple coders of data sets” (Creswell, 2007, p. 210). Therefore, to ensure credibility during the coding process, the researcher compared the coding of one of the focus group interview transcripts to an external reviewer’s coding of the same transcript to “seek agreement . . . on codes and themes” (p. 210). The researcher then revised the codebook for the next transcript.

To report the qualitative findings, the researcher wrote “a composite description of the phenomenon” of instructional coaching, “incorporating both the textural and structural descriptions” previously mentioned (Creswell, 2007, p. 159), which were externally reviewed for credibility, transferability, and trustworthiness. This final summary detailed “what participants experienced and how they experienced it” with regard to instructional coaching (p. 159).

Summary

This was a mixed-methods study, for which the quantitative portion involved survey research, and the qualitative portion involved focus group participation. Participation in either portion was strictly voluntary. Survey data were analyzed by descriptive statistics and *t*-tests,

using SPSS, to test for a relationship between frequency of instructional coaching and teacher self-efficacy. The focus group data were triangulated with the survey results to develop an understanding of the relationship between instructional coaching and teacher self-efficacy in middle school special education teachers in hard-to-staff schools. The focus group interview data also was used to generate possible avenues for future research related to instructional coaching, self-efficacy, and teacher career decisions.

Chapter 4: Results

The purpose of this study was to explore the relationship between instructional coaching with special education teachers in hard-to-staff middle schools, as well as the self-efficacy of the teachers who participated in the survey. This chapter presents the findings from the data collected through an online survey about teacher self-efficacy, instructional coaching, and career plans of middle school special education teachers. Surveys from 37 middle school special education teachers and focus group interviews with nine teachers were collected for this study. The results include both quantitative and qualitative analysis.

Three specific findings from this data are presented about the participants' reported self-efficacy, frequency of interaction with instructional coaches, and career plans. Finding 1 resulted primarily from qualitative analysis conducted to address Research Question 1. Finding 2 resulted from quantitative analysis conducted to address Research Question 2. Finding 3 emerged from the qualitative analysis conducted to address Research Question 3. Prior to presenting each of the findings, the demographics about the participants in this research project are described in detail.

Data Collection Procedures

Principals of 22 improvement-required and hard-to-staff middle schools who had instructional coaches assigned to them in a large urban school district in southeast Texas were approached by the researcher and asked to sign a permission letter (Appendix C), granting the researcher permission to distribute surveys via email to special education teachers and to contact volunteers for confidential follow-up focus group interviews. *Improvement required* describes a criteria mandated by the State's education agency for schools that perform below a minimum requirement. A recruitment email (Appendix D) with a link to the online survey (Appendix E)

that contained three sections was sent to all special education teachers at those seven middle schools for which the principal granted permission for the study to proceed. The three sections of the survey included an electronic informed consent agreement, demographic questions, and the validated TSES short form (Tschannen-Moran & Wolfolk Hoy, 2001).

During the quantitative data collection, teachers were asked to complete a survey, which included the TSES as well as questions related to retention and their experience with instructional coaching. The participants of the study had the option of returning the TSES on a voluntary basis. Participants also had the option to email their contact information if they were interested in participating in a follow-up focus group interview. Participants who volunteered their contact information were contacted to participate in the group interviews, during which they responded to qualitative questions regarding their work with instructional coaches and their thoughts about their future in as a special education teacher in a middle school. Before this interview, however, participants were contacted by the research assistant and asked to review and sign the IRB consent form. Interviews were audio recorded for the purpose of transcription. Participants were asked to read through transcriptions and make any additions or strike out any remarks they chose.

Data Coding and Analysis Procedures

Both statistical analysis and descriptive statistics were examined to minimize confounding variables. Once TSES data were collected via the online survey, the researcher generated a TSES frequency table of results, using IBM SPSS software. This table indicated the frequency of responses according to the Likert scale used on the TSES short form. Once the frequency table was generated, the researcher determined per-question and overall mean and standard deviation results. A *t*-test was then run to compare the self-efficacy results of the two

groups of teachers (those who received more than the mean reported frequency of coaching and those who received less). Any potential relationship between self-efficacy and coached vs. uncoached teachers was identified using a Spearman correlation test to determine the significance of the difference, if any, between observed and expected data. A similar Spearman correlation was run to compare the projected retention rates of the two groups of teachers. Spearman correlations were run in place of the planned chi-square and *t*-tests, which were determined to be inappropriate for this study due to the nature of the data collected and the small sample size.

Next, participants who volunteered their information were contacted to participate in the focus group interviews on each campus surveyed. Participants read the focus group informed consent form (Appendix I) and were given the opportunity to continue or decline their participation. To organize the data collected, the researcher followed the suggestions for phenomenological analysis and representation outlined by Creswell (2007). First, “a list of significant statements [that was] nonrepetitive and nonoverlapping” (p. 159) was developed by both the researcher and an external reviewer to eliminate potential bias and ensure credibility. Next, the researcher grouped the significant statements into “larger units of information, called ‘meaning units’ or themes” (p. 159), and then included “textural description” and verbatim examples of “what” participants experienced (p. 159), which were externally reviewed for credibility as well. The researcher then provided “structural description” of “how” the coaching experience occurred (p. 159).

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Participant Response and Demographics

As discussed in Chapter 3, the recruitment for this survey research project was conducted electronically through a convenience sample of the hard-to-staff middle schools in a large metropolitan district in Texas. The researcher approached 22 principals of hard-to-staff middle schools (the entire population of schools identified as hard-to-staff in the school district, as per the criteria for identification of hard-to-staff in Chapter 3). Of those principals approached, seven gave permission for their teachers to be recruited for the study. Those seven schools employed 52 teachers who met the criteria of the study to be contacted via email by the researcher. Data were then collected anonymously and confidentially via the SurveyMonkey website during a six-week period in the fall semester of 2014. A total of 37 participants clicked through to the SurveyMonkey survey, all 37 of whom indicated they wished to participate. In addition, all met the inclusion criteria discussed in Chapter 3, and none withdrew from the survey. A total of nine participants contacted the researcher via email to participate in the in-person focus group interviews. Figure 2 illustrates how the participants were obtained.

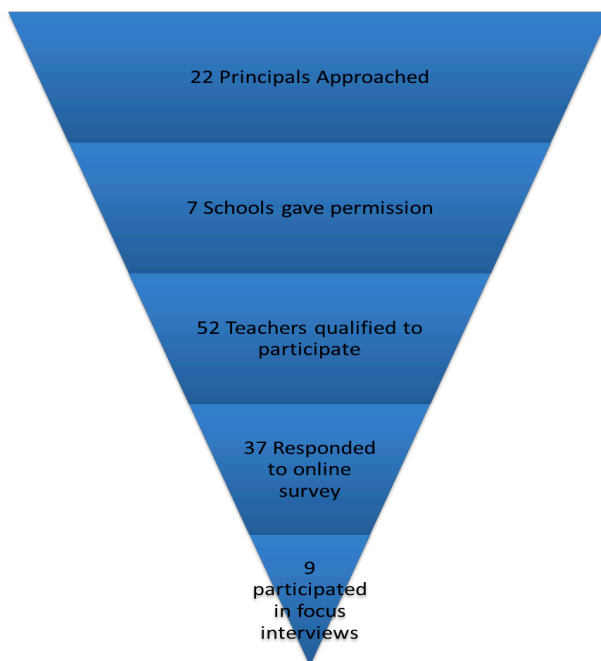


Figure 2. Process for obtaining participants.

Table 1 displays the frequency counts for selected variables. The teachers in this study held a variety of positions, most frequently Middle School Resource Teacher (32.4%) or Co-Teacher, Inclusion, or Support Facilitator (35.1%). Of these teachers, 17 (45.9%) were certified Special Education K-12 Teachers, with 10 (27.0%) holding Generalist and 5 (13.5%) holding Generalist 4–8 certifications. Most had frequent contact with their coaches, with 14 (37.8%) reporting monthly and 13 (35.1%) reporting weekly interactions. In addition, 15 of the teachers (40.5%) had been at their current position for at least nine years, with only 3 (8.1%) teachers’ reporting less than 3 years (*Mdn* = 7 years); however, 25 teachers (64.8%) planned on leaving within five years (*Mdn* = 4 years). All teachers had at least a bachelor’s degree, while 9 (24.3%) had a master’s degree, and 2 (5.4%) had earned doctorates. In addition, 27 (73.0%) of the teachers were female. Ages ranged from 21–29 years (21.6%) to 60+ (5.4%), with a median age of 34.5 years. Thirteen teachers (35.1%) self-identified as African American, 10 (27.0%) each as Latino/Hispanic and Caucasian, and 4 (10.8%) as Asian American.

Table 1

Frequencies and Percentages for Selected Variables (N = 37)

Variable	<i>n</i>	%
Current Position		
Middle School Resource Teacher	12	32.4
Middle School Co-Teacher, Inclusion, or Support Facilitator	13	35.1
Middle School Behavior Teacher	4	10.8
Middle School SLL, PSI or SLC Teacher	7	18.9
Middle School (Other)	1	2.7
Certification		
ESL, Sped K-12, Generalist	3	8.1
Special Education K-12, Generalist	10	27.0
Special Education K-12, Generalist EC-6	2	5.4
Special Education K-12, Generalist 4-8	5	13.5
Special Education K-12	17	45.9
Frequency of Coaching		
Once per semester	2	5.4
Quarterly	8	21.6
Monthly	14	37.8
Weekly	13	35.1
Years in Current Position		
1 to 2	3	8.1
3 to 5	10	27.0
6 to 8	9	24.3
9 or more	15	40.5
Years Planning to Remain		
1 to 2	10	27.0
3 to 5	14	37.8
6 to 8	7	18.9
9 or more	6	16.2
Level of Education		
Bachelor's	26	70.3
Master's	9	24.3
Doctorate	2	5.4
Gender		
Female	27	73.0
Male	10	27.0
Age group		
21-29	8	21.6
30-39	12	32.4
40-49	11	29.7
50-59	4	10.8
60+	2	5.4
Race/Ethnicity		
African American	13	35.1
Latino/Hispanic	10	27.0
Caucasian	10	27.0
Asian American	4	10.8

Figure 3 presents the current positions held by the teachers in this study. Co-teachers, Inclusion Teachers, or Support Facilitators comprised 36%, followed by Resource Teachers (33%), SLL, PSI, or SLC teachers (20%), and Behavior Teachers (11%).

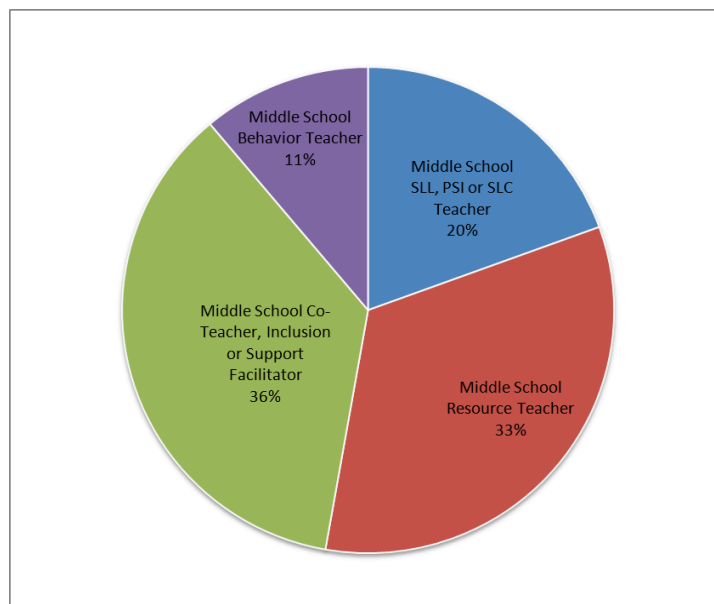


Figure 3. Current positions of participants.

Figure 4 illustrates the breakdown of the age groups. The 30- to 39-year-old group comprised 32% of the sample, followed by the 40- to 49-year-old group (30%), the 20- to 29-year-old group (22%), the 50- to 59-year-old group (11%), and the 60+-year-old group (5%). The median age was 34.5 years.

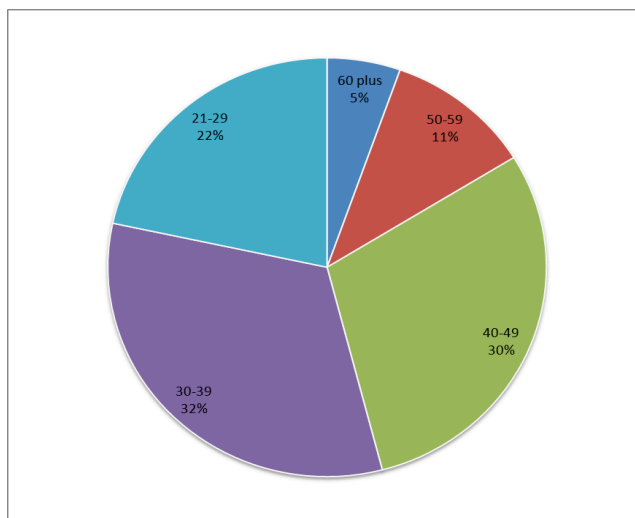


Figure 4. Age groups of participants.

Figure 5 presents the race/ethnicity of the sample. Of the teachers, 35% identified as African American, 27% as Latino/Hispanic, 27% as Caucasian, and 11% as Asian American.

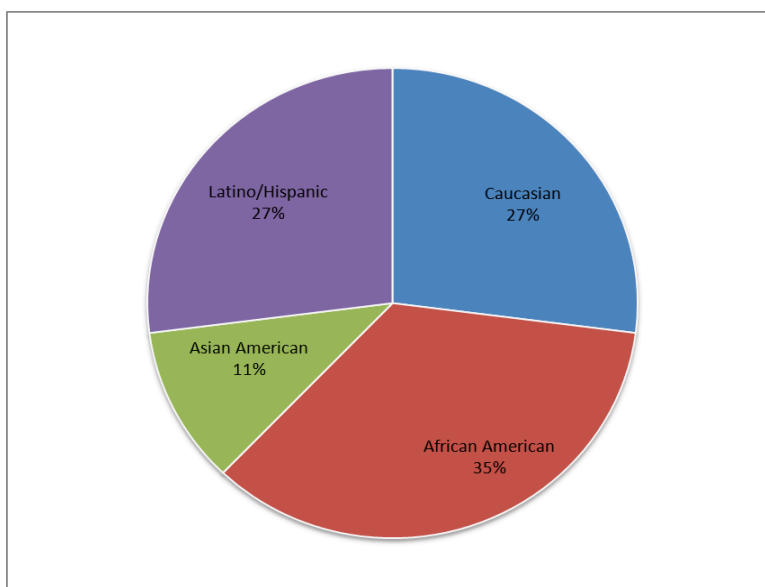


Figure 5. Race/ethnicity of participants.

Figure 6 depicts the number of years in current position of the participants. A total of 15 teachers (40.5%) had been at their current position for at least 9 years, while 3 (8.1%) had been in their position for 1 to 2 years, with a median of 7 years.

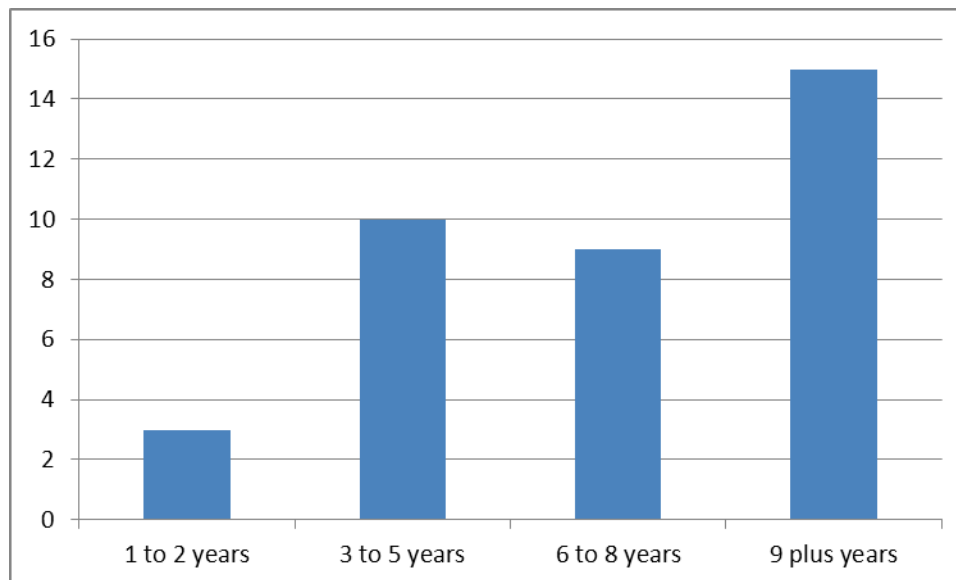


Figure 6. Years of participants in current position.

Figure 7 presents the number of years that participants planned to stay in their current position. As shown, 24 teachers (64.8%) planned to leave within five years, with a median of four years.

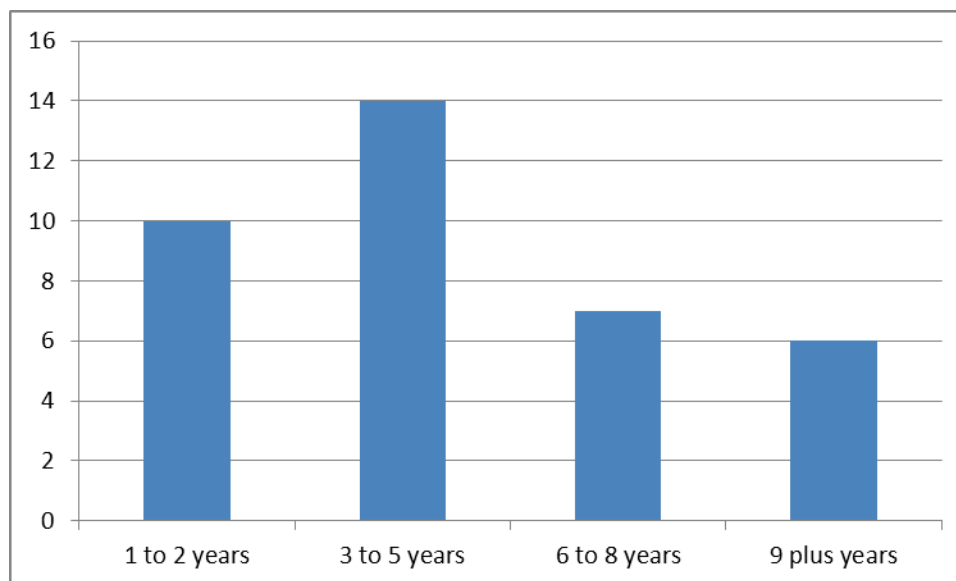


Figure 7. Years participants plan to stay in current position.

Study Findings

Research Question 1. How do special education teachers in hard-to-staff middle schools define instructional coaching?

Finding 1: Instructional coaches provide targeted, on-the-job support tailored to teacher job descriptions. One main theme with five sub-themes emerged from the detailed analysis of the participant responses to open-ended question regarding instructional coaching. The main theme emerged as 7 (78%) of the interview participants classified instructional coaching as targeted support tailored to their job description. Common phrases of participants in their initial definition of instructional coaching included, “individualized support on campus” and “targeted assistance tailored to my job description.” The five sub-themes are presented in Table 2 and include: (a) facilitating PLC meetings, (b) collaborating on planning, (c) modeling new instructional strategies, (d) observing teachers and providing feedback, and (e) communicating in multiple ways. Further, 56% (5) of the respondents indicated that their coach facilitated PLC meetings; 89% (8) reported that their coach collaborated with them on instructional planning; 33% (3) participants reported that their coach modeled instructional strategies; 56% (5) respondents indicated that their coach observed them and provided feedback; and, finally, 100% (9) of the focus group interview participants reported that their coach communicated in various ways.

Table 2

Instructional Coaching Themes (N = 9)

Theme	<i>n</i>
Facilitates PLC meetings	5
Collaborates on planning	8
Models instructional strategies	3
Observes and provides feedback	5
Communicates in a variety of ways	9

Facilitates PLC meetings. The first sub-theme indicated that instructional coaches were responsible for running PLC meetings with groups of teachers in the same content areas. Common phrases that participants included in their responses were, “facilitates professional development sessions,” “prepares me to work with my students,” and “runs PLCs.” An eighth grade co-teacher of multiple subjects reported, “[My instructional coach] comes to our PLC meetings and always has resources or strategies to share. She also comes into my class and helps me and my partner teachers teach lessons with the new strategies she runs by us in the PLCs.”

Collaborates on planning. The second sub-theme that emerged indicated that instructional coaches collaborated on planning with their teachers. Common phrases that participants included in their responses were, “always has resources to share,” “answers questions about benchmark assessments and new curriculum,” and, “sits down with me and takes me step by step through the new initiatives.” A sixth grade math resource teacher reported, “[My instructional coach] comes right to my class; we talk about planning during my prep period.”

Models instructional strategies. The third sub-theme to emerge indicated that instructional coaches provided in-class modeling of new instructional strategies for teachers. Common phrases participants included in their responses were, “comes to my class and helps me

teach lessons,” “models strategies with my students,” “models specific strategies.” A 6th–8th Self-Contained Skills for Living and Learning teacher shared, “I never did workstations before and probably wouldn’t have tried them without the assistance of my instructional coach. The fact that she modeled the strategy with my students first showed me that it could work.” A 6th–8th grade ELA Resource teacher shared, “I was able to use the [new] program with my students, which I wouldn’t have used if [my instructional coach] hadn’t shown me how to use it.”

Observes and provides feedback. The fourth sub-theme to emerge indicated that instructional coaches observed teachers’ delivering lessons and provided feedback. Common phrases found in participant responses included, “observed me and provided prompt feedback” and “provided observation feedback aligned to my district’s standards.” A 6th–8th grade Behavior Program teacher shared, “First she modeled the [new curriculum] with my students, then she observed me implementing the [new curriculum] and gave me feedback aligned with the district's instructional practice rubric.”

Communicates in a variety of ways. The fifth sub-theme to emerge indicated that instructional coaches communicated with their teachers in a variety of ways. Common responses included, “comes to my class,” “emails,” “trains the whole faculty,” “trains us in PLCs,” and “meets in-person during planning period.” A 6th–8th Grade English Language Arts co-teacher responded, “[Our coach] trains the whole staff at faculty meetings; I also really like having a point person to go to when I have questions because I feel like this district is constantly sending new initiatives our way.” A 6th–8th Self-Contained Structured Learning Class teacher commented, “[My coach] always has resources to share, and I get my questions answered right away. I also email her if I have questions about the curriculum or testing or really anything that comes up.”

Research Question 2. How does the frequency of coaching of special education middle school teachers relate to teacher self-efficacy?

Finding 2: Frequency of instructional coaching may be related to teacher sense of self-efficacy. The closed-ended TSES survey questions measures the three domains of teacher self-efficacy (engagement, instructional strategy, and classroom management) as well as overall teacher self-efficacy, as previously defined and validated in the literature. For this study, the TSES was placed next to closed-ended questions regarding frequency of interaction with instructional coaches on the teacher's campus. These closed-ended, Likert-scale questions were analyzed quantitatively to address Research Question 2.

Table 3 displays the descriptive statistics for TSES scores. These ratings were based on a 9-point metric: 1 = *Not at all* to 9 = *A great deal*. The total TSES had a mean score of 7.06 ($SD = 0.76$). The lowest mean for the individual TSES subscores was engagement ($M = 5.25$), while the highest was classroom management ($M = 6.47$; Table 3).

Table 3

Descriptive Statistics for TSES Scores (N = 37)

Score	<i>M</i>	<i>SD</i>	Low	High
TSES Total	7.06	0.76	4.40	8.70
TSES Engagement	5.25	1.88	2.55	8.30
TSES Instructional Strategy	5.95	1.64	3.69	9.00
TSES Classroom Management	6.47	1.17	4.06	8.30

Note. 1 = Not at all to 9 = A great deal.

Table 4 displays the Spearman correlations for six selected variables with four TSES scores. Spearman rank-ordered correlations were used instead of Pearson correlations due to the

sample size ($N = 37$). Further, given the sample size and the exploratory nature of the study, findings that were significant at the $p < .10$ level were noted to suggest possible avenues for future research. Three of the four TSES scores were significantly related to the frequency of coaching. Specifically, the total score ($r_s = .74, p < .001$), the instructional strategy score ($r_s = .28, p < .10$), and the classroom management score ($r_s = .66, p < .001$) were all found to be significantly correlated with the frequency of coaching. In addition, the TSES total score was positively related to the teacher's level of education ($r_s = .32, p < .05$), and the TSES engagement score was higher for male teachers ($r_s = .33, p < .05$) than for female.

Table 4

Spearman Correlations for Selected Demographic Variables with TSES Scores (N = 37)

Variable	Total	Engagement	Instructional Strategy	Classroom Management
Frequency of Coaching	.74***	.17	.28*	.66***
Number of Years in Position	-.18	-.03	.20	-.09
Number of Years Staying	.14	.20	.25	.17
Level of Education	.32**	.12	-.05	.25
Gender	-.03	.33**	.17	-.20
Age Group	-.13	-.14	.18	.05

* $p < .10$, ** $p < .05$, *** $p < .001$.

Research Question 3. What factors influence the career plans of special education middle school teachers in hard-to-staff schools?

Finding 3: *A variety of potential factors may influence teacher career plans.* Of the 9 teachers interviewed during the focus group sessions, 78% (7) planned to remain in the field of

middle school special education for five years or more, while 22% (2) participants planned to leave within the next two years. Four staying themes and one leaving theme emerged from the detailed analysis of the participant responses to open-ended question regarding career plans. The staying themes included: (a) interpersonal interactions, (b) feeling challenged, (c) feeling successful, and (d) family responsibility; the leaving theme identified as feeling overwhelmed. The results are summarized in Table 5. In addition, 55% (5) of the teachers identified positive interpersonal interactions with supervisors, colleagues, and/or students as a staying factor in their career considerations; 11% (1) identified feeling challenged and being given additional responsibility as a staying factor; 44% (4) identified feeling comfortable and successful in their current positions as a staying factor; 11% (1) identified responsibility toward family as a staying factor; and 22% (2) identified feeling overwhelmed by responsibilities and expectations as a leaving factor.

Table 5

Factors that Influence Career Plans (N = 9)

Factors	<i>n</i>
Stay	
Interpersonal Interactions	5
Feeling Challenged	1
Feeling Successful	4
Family Responsibility	1
Leave	
Feeling Overwhelmed	2

Interpersonal interactions. The first staying theme was interpersonal interactions.

Common phrases that participants provided in their responses included, “feel supported by my

administration,” “love my students,” and “I enjoy working with my colleagues.” A self-contained 6th–8th grade SLL teacher shared, “Working for a good principal can make or break your job; also your colleagues. My colleagues are really positive, but I’ve been in situations where I’ve worked with really negative people, and it just drains you.” A 6th–8th grade multiple subject co-teacher shared, “I have support in the position from my principal and the assistant principal in charge of special education.”

Feeling challenged. The second theme was feeling challenged. One participant, a 6th–8th grade multiple subject co-teacher, reported:

I plan on staying in my current position indefinitely; I feel my niche at my school is working as a special education teacher. On my campus, my administrators have given me extra responsibilities as department chair because I have credibility and awareness of what the teachers face on a daily basis.

Feeling successful. The third theme was feeling successful. Common phrases that participants shared included, “comfortable with my subject matter,” “successful as a teacher,” and “reaching my students.” A 6th–8th Self-Contained Structured Learning Class teacher shared:

I do plan on remaining in the classroom as well; I’ve been teaching SLC for 5 years, so I could see changing to a different position like Resource or something if I start to feel burned out, but I really love my students, so that would be a while. Also, I really have the SLC thing down, so if I changed I would have to revamp everything, which would just be a major hassle.

A 6th–8th grade Self-Contained Skills for Living and Learning teacher stated, “I feel like my success on the job is what affects my plans the most. As long as I feel like I’m successful as a teacher and reaching my students, I want to keep teaching special education.”

Family responsibility. The fourth theme was responsibility toward family. One participant, a 6th–8th grade SLL teacher, stated, “My family has a lot to do with my plans . . . I would possibly try to move on to be an administrator or something, but I’ve got my kids to take care of, so this job just works really well.”

Feeling overwhelmed. The fifth theme, which was the leaving theme, was a feeling of being overwhelmed by too much responsibility as both a case manager for special education and a subject matter teacher. Two participants who planned to leave their position shared their thoughts. The first participant, a 6th–8th grade English Language Arts co-teacher stated:

I’m only staying in special education if my workload stays the same; the changes coming next year seem like I’m going to need a general education certification, so why would I plan to stay and do double work as a general education teacher and a case manager when I could just work general education and do one?

The second participant who planned to leave, a seventh grade Math and English Language Arts co-teacher, shared:

I’m working for two more years, then I’m retiring. I’ve been doing this for 30 years, and it’s time for me to do something else. I case manage for 26 kids in addition to my classroom responsibilities, and it’s just too much.”

Participants who reported feelings of being overwhelmed also expressed a lack of support by their administrators, and their colleagues compounded their feelings of being overwhelmed, as exemplified by the seventh grade Math and English co-teacher’s stating, “My coworkers don’t

understand the workload of a special education teacher,” and the 6th–8th grade English co-teacher’s sharing, “My principal assigns me to regular lunch duty, even though I have to spend my prep period and after school hours running [special education] meetings; when am I supposed to have time to plan for the classes I teach?”

Summary of Key Findings

The researcher used 37 surveys and three focus group interviews with nine participants to explore the relationship between instructional coaching with special education teachers in hard-to-staff middle schools, as well as the self-efficacy of the teachers who participated in the survey. Key findings that pertained to the three research questions developed during the study.

The results of Research Question 1 (instructional coaching definitions) emerged as: (a) facilitating PLC meetings, (b) collaborating on planning, (c) modeling new instructional strategies, (d) observing teachers and providing feedback, and (e) communicating in multiple ways. Research Question 2 (coaching and teacher self-efficacy) resulted in three of the four relevant correlations to be significant (Table 3). Key findings that pertained to Research Question 3 (factors that influenced career plans) were: (a) interpersonal interactions, (b) feeling challenged, (c) feeling successful, and (d) family responsibility; the leaving theme was identified as feeling overwhelmed. In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be suggested.

Chapter 5: Conclusions and Recommendations

The primary purpose of this mixed-methods study was to explore the relationship between instructional coaching and teachers' sense of self-efficacy. The researcher specifically explored these constructs with middle school special education teachers who work in hard-to-staff middle schools in a large metropolitan district in Texas. The researcher also examined the career plans of those teachers who participated in this study. It was expected that teachers who worked closely with instructional coaches on a regular basis, both one-on-one and in PLCs throughout the academic year, would display higher levels of self-efficacy than would teachers who worked with instructional coaches less often or not at all. The limited research that exists regarding instructional coaching and teacher efficacy suggested that instructional coaching might be related to higher levels of teacher self-efficacy (Shidler, 2009). However, as noted in Chapters 1 and 2, this potential relationship had not been previously explored in depth, especially at the middle school special education, hard-to-staff school level.

Research Questions

1. How do special education teachers in hard-to-staff middle schools define instructional coaching?
2. How does the frequency of coaching of special education middle school teachers relate to teacher self-efficacy?
3. What factors influence the career plans of special education middle school teachers in hard-to-staff schools?

Research Methodology

The researcher employed a mixed-methods approach that was used to collect and analyze data in this study. Quantitative survey methods were used to collect teacher self-efficacy data on

the instructional coaching received by special education teachers in hard-to-staff middle schools in a large urban school district in Southeast Texas. Survey participants were given the opportunity to participate in focus group interviews to ensure a qualitative component that reflected the rich and varied viewpoints of the participants. The survey data were analyzed to determine whether a relationship existed between frequency of instructional coaching and teacher self-efficacy. The survey data also was triangulated with qualitative interview data to explore teacher retention through questions regarding career plans. Teacher retention was defined for the purposes of this study as a teacher's intent to stay in the field of middle school special education in a hard-to-staff school for five years or more.

Discussion of Key Findings

Finding 1: Instructional coaches provide targeted, on-the-job support tailored to teacher job descriptions. One main theme with five sub-themes emerged from the detailed analysis of the participant responses to open-ended question regarding instructional coaching. The main theme emerged as 78% (7) of the interview participants classified instructional coaching as targeted support tailored to their job description. Common phrases that participants included in their initial definition of instructional coaching included, "individualized support on campus," and "targeted assistance tailored to my job description." Further analysis yielded five sub-themes, which emerged when participants described their specific work with instructional coaches. These sub-themes included: (a) facilitating PLC meetings, (b) collaborating on planning, (c) modeling new instructional strategies, (d) observing teachers and providing feedback, and (e) communicating in multiple ways. Of the respondents, 56% (5) indicated that their coach facilitated PLC meetings; 89% (8) reported that their coach collaborated with them on instructional planning; 33% (3) reported that their coach modeled instructional strategies;

56% (5) indicated that their coach observed them and provided feedback; and, finally, 100% (9) of focus group interview participants reported that their coach communicated in various ways.

Finding 2: Frequency of instructional coaching is correlated with teacher sense of self-efficacy. The closed-ended TSES survey questions measured the three domains of teacher self-efficacy (engagement, instructional strategy, and classroom management) as well as overall teacher self-efficacy, as previously defined and validated in the literature. For this study, the TSES was placed next to closed-ended questions regarding frequency of interaction with instructional coaches on the teacher's campus. These closed-ended, Likert-scale questions were analyzed quantitatively to address Research Question 2: How does the frequency of coaching of special education middle school teachers relate to teacher self-efficacy?

To answer this question, the researcher ran correlations for six selected variables with four TSES scores. Spearman rank-ordered correlations were used instead of Pearson correlations due to the sample size ($N = 37$). In addition, given the sample size and the exploratory nature of the study, findings that were significant at the $p < .10$ level were noted to suggest possible avenues for future research. Three of the four TSES scores were significantly related to the frequency of coaching. Specifically, the total score ($r_s = .74, p < .001$), the instructional strategy score ($r_s = .28, p < .10$), and the classroom management score ($r_s = .66, p < .001$) were all found to be significantly correlated with the frequency of coaching. In addition, the TSES total score was positively related to the teacher's level of education ($r_s = .32, p < .05$), and the TSES engagement score was higher for male teachers ($r_s = .33, p < .05$) than for female.

Finding 3: A variety of potential factors may influence teacher career plans. Of the 9 teachers interviewed during the focus group sessions, 78% (7) planned to stay in the field of middle school special education for 5 years or more, while 22% (2) participants planned to leave

within the next two years. Four staying themes and one leaving theme emerged from the detailed analysis of the participant responses to open-ended questions regarding career plans. The staying themes included: (a) interpersonal interactions, (b) feeling challenged, (c) feeling successful, and (d) family responsibility; the leaving theme was identified as feeling overwhelmed. The results are summarized in Table 5. As shown, 55% (5) identified positive interpersonal interactions with supervisors, colleagues and/or students as a staying factor in their career considerations; 11% (1) identified feeling challenged and being given additional responsibility as a staying factor; 44% (4) identified feeling comfortable and successful in their current positions as a staying factor; 11% (1) identified responsibility toward family as a staying factor; and 22% (2) identified feeling overwhelmed by responsibilities and expectations as a leaving factor.

Conclusions

Based on the findings of this study, the researcher drew three primary conclusions. These conclusions are related to instructional coaching, teacher self-efficacy, and factors that influence teacher career plans.

Conclusion 1. Conclusion 1 is directly related to Finding 1. Instructional coaches provide targeted, on-the-job support tailored to teacher job descriptions as part of JEPD. The results of this study indicate that teachers defined instructional coaching as (a) facilitating PLC meetings, (b) collaborating on planning, (c) modeling new instructional strategies, (d) observing teachers and providing feedback, and (e) communicating in multiple ways. This model of instructional coaching as part of JEPD supports the literature that indicates that instructional coaches provide opportunities for practice and on-the-job follow-through are embedded throughout the teacher's workday (Garet et al., 2001; Johnson & NEA, 2006; National

Partnership for Excellence and Accountability in Teaching, 1998). Needs-based, small-group, and subject-specific training provided by coaches is less cost effective than is mass training but has proven to be more relevant to participant needs (Duncombe & Armour, 2004; Rhodes & Beneicke, 2003). Effective JEPD through instructional coaching enhances teacher self-efficacy by giving teachers the opportunity to practice new skills and receive just-in-time feedback that helps them to observe their impact on student achievement (Ingvarson et al., 2005; Joyce & Showers, 1995).

As part of a JEPD model, instructional coaching may encourage teachers to take a metacognitive approach, associated with effective teachers, to their practice (Ingvarson et al., 2005; Joyce & Showers, 1995). Coaching refers to a model of JEPD in which teachers and specialists provide support and guidance to their peer colleagues (Hasbrouck & Denton, 2007; Neufeld & Roper, 2003). Multiple labels across the literature describe similar roles, including math and literacy coaches, cognitive coaches, instructional coaches, and specialists or facilitators (Sturtevant, 2003). Coaching is often an element of school reform initiatives and can be viewed as a way to support high-quality instruction in core academic areas (Hasbrouck & Denton, 2007). Most coaches are assigned to work with teachers in the areas of math and literacy (Bean, Swan, & Knaub, 2003).

Conclusion 2. The second conclusion is directly linked to Finding 2. The frequency of instructional coaching is strongly and positively correlated with teacher sense of self-efficacy as measured by the TSES. Three of the four TSES scores were significantly related to the frequency of coaching. Specifically, the total score ($r_s = .74, p < .001$), the instructional strategy score ($r_s = .28, p < .10$), and the classroom management score ($r_s = .66, p < .001$) were all found to be significantly correlated with the frequency of coaching. This finding upholds the current

research that teachers who experience coaching not only implement new strategies but may have an increased sense of self-efficacy regarding their teaching practice as well (Fullan & Knight, 2011). In a qualitative, constructivist case study, Gross (2010) interviewed 15 high school teachers who worked closely with coaches on a literacy initiative in Pennsylvania and found that teachers perceived an improvement in their instructional practice, efficacy, and student outcomes as a result of the coaching. Teachers involved in the study reported appreciation of the opportunity to collaborate on dynamic approaches to student engagement.

In Goker's (2006) mixed-methods study of 32 student teachers, post-treatment results demonstrated statistically significant differences in the experimental peer coaching group for all variables related to their implementation of new instructional practices and their sense of efficacy in implementing those strategies. This study, therefore, implicates peer coaching as a viable option to enhance teacher self-efficacy and implementation of instructional skills. In addition, The University of Kansas Center for Research on Learning (Knight, 2009) reported that, in a professional development program where almost 80% of participants reported acquisition of new knowledge and skills, only approximately 10% of the participants could be observed applying the new techniques in the classroom setting. However, once instructional coaching was added to the program, almost 90% of the teachers could be observed applying the new knowledge and skills, which indicates that teachers not only prefer ongoing JEPD to the traditional in-service model of training, but that they are more likely to implement strategies in their classrooms if they are provided instructional coaching.

Conclusion 3. The third conclusion is directly related to Finding 3. Special educators are likely to leave the field of special education. Most teachers who participated in the survey planned to leave within five years (64.8%; *Mdn* = 4 years). The 22% (2) of focus group

interview participants who planned to leave identified feeling overwhelmed by responsibilities and expectations as a main leaving factor. The findings of this study upholding Ingersoll's (2001) research indicating Special educators are proportionately more likely to leave the field than are any other teacher group (Ingersoll, 2001). Plash and Piotrowski (2006) reported that 70 special education teachers who left a large school district in Alabama reported that "stress from demands of the job, inadequate planning time, wide diversity of student needs, class size/caseload size, excessive paperwork, and demands associated with IDEA compliance" caused them to leave the field of special education (p. 126). This study also confirmed that teacher retention "decreases when teachers are confronted with inadequate support by administrators, lack of resources, and the mismatch between the traditional practices of teacher education program curricula and schools" (Yost, 2006, p. 60).

Recommendations

There are three recommendations based on the conclusions of this study; each recommendation is directly linked to each conclusion. The recommendations made in this section are significant because they have the potential to affect professional development, teacher effectiveness, and retention in hard-to-staff schools.

Recommendation 1. Recommendation 1 stems from Conclusion 1. Recommendation 1 is that the findings from this study should be used to promote further research into how instructional coaches provide JEPD to middle school special education teacher self-efficacy in hard-to-staff schools. Sailors and Shanklin (2010) indicated that instructional coaching may be related to self-efficacy and retention of special educators in hard-to-staff middle schools, yet little research had previously been conducted to verify this relationship.

Although many researchers have described the roles of coaches in the development of teacher efficacy (Knight, 2007, 2009; Rodgers & Rodgers, 2007; Toll, 2009), few have focused on coaching at the middle school level (Gross, 2010), and fewer still have focused on coaching as it relates to special education teachers and their perceptions of self-efficacy at hard-to-staff schools (Lovett et al., 2008). Sailors and Shanklin (2010) further posited that “coaching is a viable and effective form of professional development for teachers [but that the] specific details as to the role of coaches in . . . improv[ing] teacher instruction [has] yet to be determined” (p. 5).

An exhaustive search conducted by the researcher for scholarly peer-reviewed articles in the EBSCO Academic Search Complete database yielded no results for the intersection of the terms *instructional coaching*, *middle school*, and *special education* as well as for the terms *job-embedded professional development*, *middle school*, and *special education*. A search for the same terms in the ERIC database yielded one result: a three-year study on the effects of a JEPD program at six rural and urban schools in Georgia. The results of the analysis indicated that JEPD was effective in a “continuum of service delivery from traditional self-contained and resource rooms to co-taught general education content classrooms” (Strieker et al., 2012, p. 1062). The researchers recommended that future study take place to qualitatively analyze how specific schools engage in JEPD to explore how teachers develop expertise and how teachers define “the relationships between teacher practices and student outcomes” (p. 1063). A further search was conducted by the researcher for intersection of the terms *job-embedded professional development*, *self-efficacy*, and *special education*, which also yielded no results in the EBSCO Host and ERIC databases. A similar search for the terms *instructional coaching*, *teacher efficacy*, and *special education* yielded no results in either database.

Recommendation 2. Recommendation 2 draws from Conclusion 2. The second recommendation is that school districts should consider changing their professional development models to JEPD that includes peer-to-peer support from instructional coaches. School leaders may use the data collected in this study to build a staff of self-efficacious special education teachers in hard-to-staff middle schools. In addition to the strong correlation between frequency of instructional coaching and overall teacher self-efficacy identified by this study, instructional coaching has many potential benefits.

The long-term mentorship provided by instructional coaches may develop a framework for “the acquisition and internalization of a metacognitive teaching mental model” (Lovett et al., 2008, p. 1087). This level of mentorship also may help schools to retain their effective teachers. According to a national study of irreplaceables (the top 15% of effective teachers in the nation as measured by standardized student achievement scores), effective teachers are more likely to stay in the field if a campus leader: “(a) provided [them] with regular, positive feedback; (b) helped identify areas of development; and (c) gave critical feedback about performance informally” (TNTP, 2012, p. 16). Instructional coaching may, therefore, be one option to help retain special education teachers at hard-to-staff middle schools.

Recommendation 3. Recommendation 3 is related to Conclusion 3. The third recommendation calls for deeper exploration of the constructs that assist in the retention of middle school special education teachers at hard-to-staff schools (Billingsley, 2004). Teacher turnover serves as a barrier to developing a consistent, achievement-based school culture, as high turnover rates cause a shortage of highly qualified teachers in the K–12 public education setting (Brill & McCartney, 2008). Teacher absenteeism, paired with high rates of turnover, not only has a heavy financial impact on school districts but also encourages student truancy and

negatively affects student achievement. Trends in the literature indicate that students in hard-to-staff schools and schools with high student poverty levels are especially vulnerable to excessive rates of teacher turnover (Petty et al., 2012). Students in hard-to-staff schools lack access to qualified teachers, which contributes to massive disparity between at-risk students and their more affluent counterparts at schools that do not suffer from these high rates of turnover (Petty et al., 2012).

Personnel shortages in teaching have reached a critical state across the nation, especially in hard-to-staff schools and hard-to-staff areas, such as special education (Boe et al., 1999; Brownell et al., 1997, Petty et al., 2012). Special educators are proportionately more likely to leave the field than are any other teacher group (Ingersoll, 2001). The results of this study are consistent with the literature in that a wide range of complex factors interact to influence special education teacher decisions to stay in or leave the field (Billingsley et al., 1995). To address these challenges, researchers need to continue to investigate constructs that assist in the retention of middle school special education teachers at hard-to-staff schools (Billingsley, 2004).

Recommendations for Future Research

Given the results of this study compared with the current review of the literature, several conclusions have been generated and supported. However, due to the limitations of this study, there are several opportunities for future research. Future research may address the following five issues:

1. This mixed-methods study explored the self-efficacy and career plans of 37 middle school special education teachers who received instructional coaching in a large urban school district in Texas. A study that included a larger population of teachers across grade levels, demographic locations and placements would yield varying results and

provide greater insight into the triangulation of instructional coaching, self-efficacy and teacher retention. A Pierson correlation should be run with the larger sample size.

2. The quantitative survey portion of this study was conducted after the participating teachers had received ongoing instructional coaching for a semester or more. A longitudinal study could take place over the course of three or more years to determine the relationship of instructional coaching on teacher self-efficacy and career plans over time. The group of teachers should take a self-efficacy survey before and after they are coached to examine potential areas of growth.
3. The quantitative portion of this study reviewed overall teacher self-efficacy as well as three sub-categories of teacher efficacy (instructional strategy, student engagement, and classroom management) related to frequency of instructional coaching. A study could be designed that compared the efficacy of special education teachers versus general education teachers with regard to each subcategory to determine whether there is a need for more specific instructional coaching for either sub-population.
4. The qualitative portion of this study asked three small focus groups of three teachers each (nine teachers in total) to describe their definitions and perceptions of instructional coaching, self-efficacy, and factors that influenced their career plans. Greater insight would be achieved if a larger population of teachers were interviewed regarding these constructs.
5. The qualitative portion of this study concerned the interviews of middle school special education teachers about their definitions of instructional coaching. Including the perceptions of the instructional coaches, students, and administrators who participated in the instructional coaching model may generate richer and more varied insights.

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APPENDIX A

Formats for Job-Embedded Professional Development

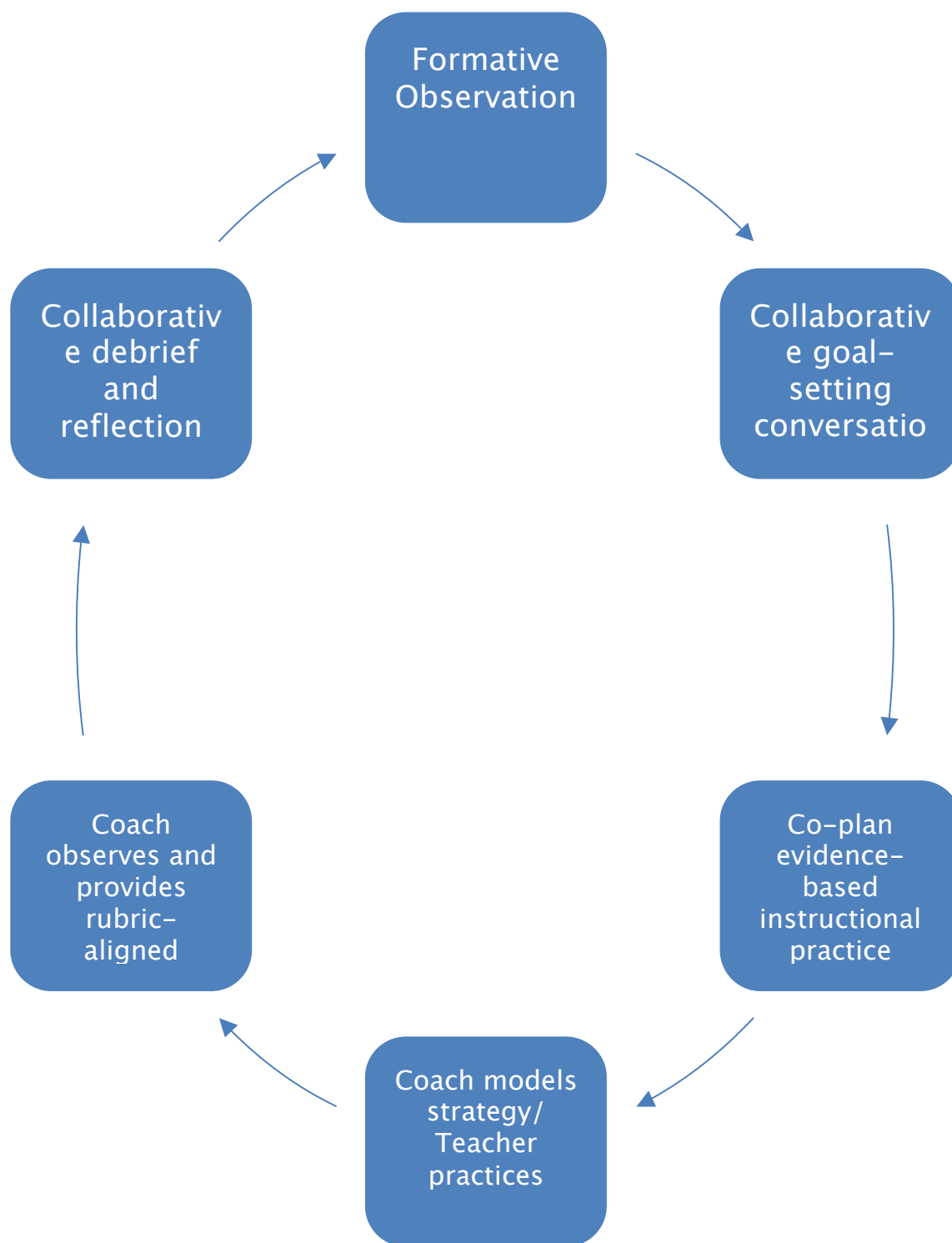
<p>Action Research. Teachers select an aspect of their teaching, such as their wait time during questioning, to systematically investigate. They record data and consider theories from the research literature, draw conclusions about how teaching and learning influence each other, and use this information to inform future instructional decisions. The primary intent is to improve the teachers' immediate classroom teaching. If applicable, the secondary intent is to generalize the information across other contexts in the school or beyond (Cochran-Smith & Lytle, 1990).</p>
<p>Case Discussions. Case discussions allow teachers to more critically analyze teaching because they are not part of the scenario (LeFevre, 2004). Formats include written, video, and multimedia, with varying control over the content to match the purpose of the case study or to reveal student thinking or a missed opportunity. One strength of video case discussions is the opportunity for teachers to analyze student thinking at a deep level (Sherin & Han, 2004; van Es & Sherin, 2008). Case discussions, when they take place among a school's faculty and are situated in actual practice, are a process for JEPD.</p>
<p>Coaching. Coaching differs from mentoring in its focus on the technical aspects of instruction rather than on the larger personal and nonacademic features of teaching (Rowley, 2005). An instructional coach provides ongoing help by way of demonstrations, observations, and conversations with teachers as they implement new strategies and knowledge. Typically, instructional coaches have expertise in the applicable subject area and related teaching strategies. Some coaches continue to teach part-time, some come from the school, and others travel throughout the district, working with teachers. The National Staff Development Council offers multiple resources for instructional coaching, including publications and interactive online tools (http://www.nsd.org).</p>
<p>Critical Friends Groups. Teachers meet and analyze each other's work, including artifacts such as student work, a lesson plan, or an assessment. They also may discuss the challenges that they face with presenting the subject matter or with meeting a particular student's needs. Norman, Golian, and Hooker (2005) provide illustrative examples.</p>
<p>Data Teams/Assessment Development. Teachers meet and analyze results from standardized tests or teacher-created assessments. They formulate what the evidence from the data tells them about student learning and discuss teaching approaches to improve student achievement. Teachers also may work on refining assessments as a means to gather more useful student data.</p>
<p>Examining Student Work/Tuning Protocol. Examining student work enables teachers to develop a common understanding of good work, identify student misconceptions, and evaluate their teaching methods. Through the tuning protocol, teachers share student work (or their assignments and rubrics) and describe the context in which the work is used. Teachers also ask questions of each other and provide feedback on how their work may be fine-tuned to improve student learning (Blythe, Allen, & Powell, 1999; Brown-Easton, 1999).</p>
<p>Implementing Individual Professional Growth/Learning Plans. Alongside an instructional leader, such as a master teacher or the principal, or as members of a professional learning community, teachers develop their own professional growth plans to understand what professional development opportunities they should engage in as well as to track their growth in a competency area. They can choose to participate in JEPD to ensure their progress.</p>

<p>Lesson Study. During sessions known as “research lessons,” teachers alternate in preparing a lesson to demonstrate a specific teaching and learning goal (e.g., help a student master a mathematics concept, conduct a peer review of writing within groups). Other teachers observe and document what they see via video, computer, or pencil and paper. After the lesson, the teachers meet and discuss the strengths of the lesson and make suggestions for improvement. Sometimes, the lesson is revised and presented again. See Stepanek, Appel, Leong, Mangan, and Mitchell (2006) and Lewis, Perry, and Murata (2006) for practical implications.</p>
<p>Mentoring. Increasingly implemented as part of the induction phase for new teachers, mentoring may develop into coaching or peer support relationships as teachers gain experience. Best practice includes matching teachers from the same content area, establishing common planning time, and structuring time for further collaboration. Mutual observance of classroom teaching is usually included. When situated in a new teacher’s actual classroom practice, mentoring is a process for JEPD. See Portner (2005) or the New Teacher Center website (http://newteachercenter.org/) for more information.</p>
<p>Portfolios. Teachers assemble lesson plans, student work, reflective writing, and other materials that are used to prepare for teaching or are used directly in the classroom. This body of work can be used to track a teacher’s development in a competency area or used for reference by other teachers. Teachers report that developing a portfolio is a powerful learning activity as, in the process, they reflect on their teaching practice in light of standards (Gearhart & Osmundson, 2009). Presenting one’s portfolio to a group of one’s peers or meeting with a coach can make portfolios a powerful venue for JEPD.</p>
<p>Professional Learning Communities. Teachers collaborate to analyze their practice and discuss new strategies and tactics, testing them in the classroom and reporting the results to each other. Hord (1997) presents five attributes of effective PLCs: supportive and shared leadership, collective creativity, shared values and vision, supportive conditions, and shared personal practice. PLCs address teacher isolation, create shared teacher responsibility for all students, and expose teachers to instructional strategies or knowledge to which they did not have access previously. Such communities can be a venue for JEPD as well as other forms of reform-based professional development.</p>
<p>Study Groups. In small groups or as a faculty, teachers generate topics for study related to school improvement goals or student data and then read and react to educational research or other literature on teaching and student learning. They engage in structured dialogue or discussion that explores issues deeply and considers the implications for school or classroom practices.</p>

Source. Croft et al. (2010), pp. 6–7.

APPENDIX B

Instructional Coaching Model



APPENDIX C

Principal Permission Letter

Date: _____

To Pepperdine University, Division of Education:

It is a pleasure to grant Mrs. Sarah Dhah permission to conduct her Pepperdine University doctoral dissertation study titled, *The Relationship Between Job-Embedded Professional Development and Special Education Teacher Self-Efficacy in Hard-to-Staff Middle Schools* at _____ Middle School from April 2014 through June 2014. I understand that this study includes an email recruitment letter to special education teachers on my campus, inviting them to participate in a voluntary and anonymous 20-minute online survey at their convenience. I also understand that teachers may submit their contact information to the researcher for a follow-up focus group interview of 45 minutes, which is also voluntary. I understand that teachers are not required to participate in any portion of this study. If further information is required, please contact me via email at _____ or via telephone at _____.

Sincerely,

Principal

APPENDIX D

Participant Recruitment Email

You are invited to participate in a research study that seeks to understand the relationship between Job-Embedded Professional Development and teacher self-efficacy of special education teachers in the district. This research is being led by Sarah Dhah, a doctoral student at Pepperdine University, under the direction of Professor Reyna García Ramos at the Graduate School of Education and Psychology. Your participation is strictly voluntary, and this work seeks to uncover factors related to teacher self-efficacy, which may help inform how educational leaders enact professional development for special education teachers.

Your participation involves an online survey that takes approximately 20 minutes to complete through SurveyMonkey via a password-protected website. Your participation in this survey is structured to ensure confidentiality, as no identifying information is collected on this survey.

You are also invited to participate in a follow-up focus group interview, which will take approximately 45 minutes. Your participation is voluntary. Your participation in this interview is confidential, as no identifying information will be recorded. The only person who will have access to the responses is the researcher, Sarah Dhah. Audio recording of the focus group interview will be in place to ensure the accurate and entire feedback to the researcher.

Should you wish to participate in the voluntary focus group interview, please email Sarah Dhah at sarah.dhah@pepperdine.edu with your name and contact information, and the researcher will contact you.

If you have any questions about participating in this study, you may contact Sarah Dhah, Doctoral Student at Pepperdine University, at sarah.dhah@pepperdine.edu or her dissertation chair, Dr. Garcia Ramos, at rgramos@pepperdine.edu or via telephone at 310-568-2306.

Thank you in advance for your consideration to participate in this research study. Be on the lookout for the study link should you choose to participate.

APPENDIX E

Online Survey: Informed Consent, Demographics, TSES

Online Survey

Welcome! The purpose of this research study is to explore the relationship between Job-Embedded Professional Development and Teacher Self-Efficacy of special education teachers in the district. This research project is being conducted by Sarah Dhah, Doctoral Student for Pepperdine University's Doctorate in Organization Leadership program, working under the supervision of Dr. Reyna García Ramos.

You are invited to complete this online survey. Your participation is completely voluntary; if you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate or withdraw from participating at any time, you will not be penalized. Your responses will be kept confidential, and no identifying information, such as your name, email address or IP address, will be collected in this process. There are no direct benefits for participating; the benefits are societal in nature and add to the literature on professional development options for teachers. There is less than minimal risk to participate, and it will take approximately 20 minutes to complete this survey.

Your responses will be completely anonymous. All data is stored in a password-protected electronic format. The results of this study will be used for scholarly purposes only. If you have any questions about the research study, would like to complete a hard copy of an informed consent form, or would like a copy of this research when completed, please contact Sarah Dhah at Sarah.Dhah@pepperdine.edu or her dissertation chair, Dr. Garcia Ramos, at rgramos@pepperdine.edu or via telephone at 310-568-2306.

This research has been reviewed according to Pepperdine University's Institutional Review Board (IRB) procedures. Should you have questions regarding IRB procedures for this study, please contact GPS IRB and Dissertation Chair at Pepperdine University, 6100 Center Drive, 5th Floor, Los Angeles, CA 90045.

Please click the link to proceed: <https://www.surveymonkey.com/s/D7PWHC2>

Thank you for participating in this electronic survey. Please keep in mind that all of your responses are anonymous and confidential.

Survey directions: There are 10 questions in this survey, which should take you approximately 20 minutes to complete. Please respond by clicking the item that best describes your answer to each of the survey questions. Thank you in advance for your time.

ELECTRONIC CONSENT: Please select your choice below.

If you do not wish to participate in the research study, please decline participation by clicking on the “disagree” button. Clicking on the “agree” button below indicates that:

- you have read the above information
- you voluntarily agree to participate

- you are at least 18 years of age

___ agree

___ disagree

1. Which of the following best describes your current occupation?
 - Middle School Resource Teacher
 - Middle School Co-Teacher
 - Middle School Inclusion or Support Facilitator
 - Middle School Behavior Teacher
 - Middle School SLL, PSI or SLC Teacher
 - Other (please specify): _____
2. About how long have you been in your current position?
 - Years:
 - Months:
3. How long do you plan to stay in your current position?
 - Years:
 - Months:
4. Please list the certificate/s of teaching you possess: _____
5. How often do you interact with a Teacher Development Specialist? (Interactions may be one on one, at PLC meetings, or through email, phone, and/or training)
 - Daily
 - Weekly
 - Monthly
 - Quarterly
 - Once per semester or less
 - Never
6. A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

KEY: 1 = Nothing; 3 = Very Little; 5 = Some Influence; 7 = Quite a Bit; 9 = A Great Deal

1. How much can you do to control disruptive behavior in the classroom?	1 2 3 4 5 6 7 8 9
2. How much can you do to motivate students who show low interest in schoolwork?	1 2 3 4 5 6 7 8 9
3. How much can you do to calm a student who is disruptive or noisy?	1 2 3 4 5 6 7 8 9
1. How much can you do to help your students value learning?	1 2 3 4 5 6 7 8 9
2. To what extent can you craft good questions for your students?	1 2 3 4 5 6 7 8 9
3. How much can you do to get children to follow classroom rules?	1 2 3 4 5 6 7 8 9
4. How much can you do to get students to believe they can do well on schoolwork?	1 2 3 4 5 6 7 8 9
5. How well can you establish a classroom management system with each group of students?	1 2 3 4 5 6 7 8 9
6. To what extent can you use a variety of assessment strategies?	1 2 3 4 5 6 7 8 9
10. To what extent can you provide an alternative explanation or example when students are confused?	1 2 3 4 5 6 7 8 9
11. How much can you do to assist families in helping their children do well in school?	1 2 3 4 5 6 7 8 9
12. How well can you implement alternative teaching strategies in your classroom?	1 2 3 4 5 6 7 8 9

Hoy, W. K., & Wolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal*, 93, 356–372.

7. Which category best describes your race or ethnicity?

- Caucasian
- African American
- Latino/Hispanic
- Asian American
- Pacific Islander
- From Multiple Races
- Other: _____

8. Which category includes your age?

- 21–29
 - 30–39
 - 40–49
 - 50–59
 - 60 or older
9. Are you male or female?
- Male
 - Female
10. What is the highest level of education you have completed or highest degree received?
- Bachelor degree
 - Post-bachelor degree
 - Master's degree
 - Doctoral degree

Thank you for participating in this survey; your survey is complete. Please contact the researcher at sarah.dhah@pepperdine.edu should you wish to be contacted for a follow-up focus group interview or should you have any questions related to this study.

APPENDIX F
TSES Short Form

A number of statements about organizations, people, and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

INSTRUCTIONS: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

KEY: 1 = Nothing; 3 = Very Little; 5 = Some Influence; 7= Quite a Bit; 9 = A Great Deal

1. How much can you do to control disruptive behavior in the classroom?	1 2 3 4 5 6 7 8 9
2. How much can you do to motivate students who show low interest in schoolwork?	1 2 3 4 5 6 7 8 9
3. How much can you do to calm a student who is disruptive or noisy?	1 2 3 4 5 6 7 8 9
4. How much can you do to help your students value learning?	1 2 3 4 5 6 7 8 9
5. To what extent can you craft good questions for your students?	1 2 3 4 5 6 7 8 9
6. How much can you do to get children to follow classroom rules?	1 2 3 4 5 6 7 8 9
7. How much can you do to get students to believe they can do well on schoolwork?	1 2 3 4 5 6 7 8 9
8. How well can you establish a classroom management system with each group of students?	1 2 3 4 5 6 7 8 9
9. To what extent can you use a variety of assessment strategies?	1 2 3 4 5 6 7 8 9
10. To what extent can you provide an alternative explanation or example when students are confused?	1 2 3 4 5 6 7 8 9
11. How much can you do to assist families in helping their children do well in school?	1 2 3 4 5 6 7 8 9
12. How well can you implement alternative teaching strategies in your classroom?	1 2 3 4 5 6 7 8 9

Hoy, W. K., & Wolfolk, A. E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal*, 93, 356–372.

APPENDIX G

Permission to Use TSES



ANITA WOOLFOLK HOY, PH.D.

**PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION**

Dear

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

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

Best wishes in your work,

Anita Woolfolk Hoy, Ph.D.
Professor

APPENDIX H

Focus Group Interview Script

Good evening, and welcome to our session. Thanks for taking the time to join us to talk about your experience with instructional coaching and job-embedded professional development on your campus. My name is Sarah Dhah, and I'm a doctoral student at Pepperdine University. I'd like to know what your experience with job-embedded professional development has been. I'd also like to know a little bit about what influences your career plans in the district.

There are no wrong answers but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said.

You've probably noticed the microphone. I am audio recording the session because I don't want to miss any of your comments. We will be on a first-name basis tonight, and I won't be using any identifying names of participants in my research. You are assured of complete confidentiality, as I will be using pseudonyms and a coding system to refer to participants.

Well, let's begin. We've placed name cards on the table in front of you to help us remember each other's names. Let's find out some more about each other by going around the table. Tell us your first name only and your current position (grade level and instruction assignment).

1. What is job-embedded professional development?
 - a. Please describe your work with the instructional coach on your campus and in your classroom.
 - b. What is your interaction with your instructional coach?
2. Does JEPD make a difference in your practice? Yes/No. Can you explain?
 - a. Did your instructional implementation change? In what ways?
 - b. Did JEPD change the way you think about teaching?
 - c. How do you define self-efficacy?
 - d. Did JEPD affect your self-efficacy?
 - e. Do you believe there is a need for continued JEPD on your campus? Why or why not?
3. What are the major factors that influence your career plans?
 - a. Do you plan to remain as a middle school special education teacher? Why or why not?
 - b. Is there anything else you would like to share?

APPENDIX I

Focus Group Interview Informed Consent Form

THE RELATIONSHIP BETWEEN JOB-EMBEDDED PROFESSIONAL DEVELOPMENT
AND MIDDLE SCHOOL SPECIAL EDUCATION TEACHER SELF-EFFICACY
IN HARD-TO-STAFF SCHOOLS

You are invited to participate in a research study that explores the relationship between job-embedded professional development and teacher self-efficacy. This study is being conducted by Sarah Dhah, Doctoral Candidate for Pepperdine University's Doctorate in Organization Leadership program, working under the supervision of Dr. Reyna García Ramos, a professor at Pepperdine University.

Your participation is completely voluntary; if you decide to participate in this research interview, you may withdraw at any time. If you decide not to participate or withdraw from participating at any time, you will not be penalized. Nothing you say on the interview will in any way influence your present or future employment with your school or district. The information you will share with us if you participate in this study will be kept completely confidential to the full extent of the law. Participants will be asked to not use any names during the focus group discussion. Reports of study findings will not include any identifying information. Audio recordings and typed transcriptions will be kept in a locked home office and on the researcher's password-protected computer.

If you agree to participate in this study, you would participate in a focus group interview with other teachers from your school or district. The focus group will be led by Sarah Dhah. The topics that will be discussed during the focus group include job-embedded professional development, instructional coaching, and factors that influence your career plans. The focus group will last 45 minutes.

The focus group will be audio recorded to accurately capture what is said. If you participate in the study, you may request that the recording be paused at any time. You may choose how much or how little you want to speak during the group. You may also choose to leave the focus group at any time.

If you participate in the study, you will not receive compensation for your time.

Participating in this study may not benefit you directly, but it will help us to learn about job-embedded professional development, teacher self-efficacy, and factors that influence teacher career plans. We do not envision any significant risks related to participation in this study. Participants may feel some pressure to reveal feelings or experiences to the group. If participants share their experiences with colleagues and peers, they may also feel vulnerable during or after the group as they would if they were to share their experiences with family or friends.

If you have any questions about participating in this study, you may contact Sarah Dhah, Doctoral Candidate at Pepperdine University, at sarah.dhah@pepperdine.edu.

This research has been reviewed according to Pepperdine University's Institutional Review Board (IRB) procedures. Should you have questions regarding IRB procedures for this study, please contact GPS IRB and Chair at Pepperdine University, 6100 Center Drive, 5th Floor, Los Angeles, CA 90045.

Your signature on this consent form indicates your agreement to participate in this study.

You will be given a copy of this form to keep, whether you agree to participate or not.

The second signed consent form will be kept by the researcher.

I have read the consent form and all of my questions about the study have been answered. I understand that the focus group will be recorded. I agree to participate in this study and be audiotaped.

Print name: _____

Signature: _____

Date: _____

APPENDIX J

IRB Approval Letter

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

October 14, 2014

Sarah Dhah
[REDACTED]

Protocol #: E0414D07

Project Title: The Relationship Between Job-Embedded Professional Development and Special Education Teacher Self-Efficacy in Hard-to-Staff Middle Schools

Dear Ms. Dhah:

Thank you for submitting your application, *The Relationship Between Job-Embedded Professional Development and Special Education Teacher Self-Efficacy in Hard-to-Staff Middle Schools*, for exempt review to Pepperdine University's Graduate and Professional Schools Institutional Review Board (GPS IRB). The IRB appreciates the work you and your faculty advisor, Dr. Garcia-Ramos, have done on the proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations (45 CFR 46 - <http://www.nihtraining.com/ohsrsite/guidelines/45cfr46.html>) that govern the protections of human subjects. Specifically, section 45 CFR 46.101(b)(2) states:

(b) Unless otherwise required by Department or Agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

Category (2) of 45 CFR 46.101, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: a) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

In addition, your application to waive documentation of informed consent has been **approved**.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit a **Request for Modification Form** to the GPS IRB. Because your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the GPS IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the GPS IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the GPS IRB and the appropriate form to be used to report this information can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* (see link to "policy material" at <http://www.pepperdine.edu/irb/graduate/>).

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval. Should you have additional questions, please contact Kevin Collins, Manager of the Institutional Review Board (IRB) at gpsirb@pepperdine.edu. On behalf of the GPS IRB, I wish you success in this scholarly pursuit.

Sincerely,



Thema Bryant-Davis, Ph.D.
Chair, Graduate and Professional Schools IRB

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives
Mr. Brett Leach, Compliance Attorney
Dr. Reyna Garcia-Ramos, Faculty Advisor