Developing collective teacher efficacy through job-embedded professional development in elementary teachers

Michele Schluntz

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ABSTRACT

DEVELOPING COLLECTIVE TEACHER EFFICACY THROUGH JOB-EMBEDDED PROFESSIONAL DEVELOPMENT IN ELEMENTARY TEACHERS

Michele Schluntz, Ed.D.
Department of Curriculum and Instruction
Northern Illinois University, 2018
Elizabeth Wilkins, Director

The purpose of this mixed-method study was to explore the outcomes of a Job-Embedded Professional Development (JEPD) approach on Collective Teacher Efficacy (CTE). Teachers volunteered to participate in one of three literacy teams designed for the study. At the opening of the study, teachers completed the Collective Teacher Efficacy Belief Scale (CTEBS) to determine the level of CTE present prior to engaging in the JEPD sessions. During the three JEPD sessions, teachers engaged in meaningful conversations about situated problems of practice and potential changes to address such concerns. At the conclusion of each JEPD session, teachers completed individual reflection journals documenting their experiences. Upon completion of the final JEPD session, teachers again completed the CTEBS. The study concluded with the completion of one-on-one interviews to provide a deeper understanding to the responses provided through the individual reflection journals.

Three major findings were identified in this study. First, it was concluded that a JEPD approach to the professional development of teachers may play a role in influencing CTE. Second, this study supported the Social Cognitive Theory framework of human agency and Triadic Reciprocal Causation. And third, meaningful conversations about situated learning in authentic problems of practice contributed to the development of CTE.
As a result of these findings, this study supports a sociocultural approach to the professional development of teachers. Embedded in Vygotsky’s (1978) Socio-cultural Theory, there are five principles that encompass a sociocultural approach to teacher professional development. Teachers in this study experience four out of the five: teacher agency, situational appropriate, dialogical practice, and systemic in view. Utilizing these findings, recommendations for professional development and future research are also discussed.
DEVELOPING COLLECTIVE TEACHER EFFICACY THROUGH
JOB-EMBEDDED PROFESSIONAL DEVELOPMENT IN ELEMENTARY TEACHERS

BY

MICHELE SCHLUNTZ
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A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL
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FOR THE DEGREE
DOCTOR OF EDUCATION

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Doctoral Director:
Elizabeth Wilkins
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At the heart and soul of this work are my family and friends. Mom and Dad your love is the source of my perseverance. Aunt Jan, brothers, sisters-in-laws, nephews, and niece, you inspire me to live up to the unspoken expectations that make us a Schluntz. Church family, your faithfulness saw me through the challenges. Erik, my Jiminy Cricket and best friend, you kept me focused and hopeful. And to my furry companions – Tigger, Shelby, Comet, and Cupid – thank you for the countless hours of company at the computer.
DEDICATION

To my mom and dad, John and Judy,

for your love.

To my family

for inspiring me.
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Collective teacher efficacy could be instrumental for achieving the kind of sustainable school change crucial to meeting the challenges facing teachers in this era of accountability (Raphael, Vasquez, Fortune, & Au, 2014). The focus on teacher accountability is the result of reform initiatives calling for additional changes in the educational environment that lead to greater student achievement. However, for these effective changes to occur, procedures in the art of teaching should focus on implementing maintainable practices that provide job-embedded resources leading to a transformation that will withstand the obstacles that come with change.

Collective teacher efficacy is rooted in Bandura’s (1986, 1997, 2001) Social Cognitive Theory, which states that human learning occurs in a social environment (Schunk, 2012). At the center of Bandura’s theory is the concept of perceived self-efficacy. Bandura found that the construct of self-efficacy can be applied to a group, thus collective efficacy is “concerned with the performance capability of a social system as a whole” (Bandura, 1997, p. 469). As such, collective teacher efficacy is defined “as the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students” (Goddard, Hoy, & Woolfolk-Hoy, 2000, p. 480). An example of collective teacher efficacy at the elementary level could be a grade level team identifying a weakness in their phonemic awareness program based on low student scores on a district test. After further analysis of test questions and student responses, the team,
together makes plans for changes in classroom instruction and activities to address areas of
deficits. In this example, the team takes responsibility for all students in that grade level and
works collaboratively to plan and create materials to supplement the published phonemic
curricular program. This approach results in improvement in student achievement while
enhancing the mastery experience of teachers.

Collective teacher efficacy focuses on beliefs about teachers’ capacity and knowledge.
This was the focus of a study by Raphael et al. (2014), who found that building capacity
collectively leads to long-term sustainable school improvements through the professional
development of teachers. This model of professional development with a focus on sustainable
school improvements is based in principles consistent with sociocultural theory (Raphael et al.).
Rooted in Vygotsky’s (1978) original theory, sociocultural theory concludes that learning
emerges from interactions with others (Raphael et al., 2014; Schunk, 2012). At its foundation is
the belief that teachers are empowered agents of change. The sociocultural theory also supports
professional development that is situated within day-to-day practices of teachers, offers the
opportunity for meaningful conversations between participants, and takes on a systemic
understanding of the implementation of learning so that learning is sustained across extended
periods of time.

An approach to the professional development of teachers that incorporates these
underpinnings of the sociocultural theory is the Job-Embedded Professional Development
(JEPD) model. JEPD is a reform-oriented initiative that integrates learning into the day-to-day
practices of teaching (Croft, Coggshall, Dolan, Powers, & Killion, 2010). It focuses on activities
designed to promote a growth-in-practice concept toward teacher learning, referred to as
“professional learning” (Lieberman & Miller, 2014, p. 9; see also Hirsh, 2009). This concept of
professional development for teachers is a departure from the old norms and models of in-service training. In-service training implies an instructional model approach to teacher learning in which direct one-day instructional workshops address content knowledge and practical application of perceived teacher deficits (Little, 1993). The direct connection of JEPD and the sociocultural theory will be discussed in more detail later in this chapter.

This study explored the effects of a sociocultural approach on the professional development of elementary teachers’ collective efficacy beliefs. A synopsis of the dissertation study is presented in the following sections.

Problem Statement

Collective teacher efficacy is a relatively young construct of study in the educational research community (Goddard, 2001, 2002; Goddard, Goddard, & Tschannen-Moran, 2007; Goddard, Hoy, & Woolfolk-Hoy, 2000, 2004; Goddard & Skria, 2006; Klassen, 2010; Klassen, Usher, & Bong, 2010; Ware & Kitsantas, 2007). In contrast, sports psychologists have long recognized the vital impact of self and collective efficacy in athletics (Corbin, Laurie, Gruger, & Smiley, 1984; Feltz, Landers, & Raeder, 1979; Gould & Weiss, 1981; McAuley, 1985). Athletes have utilized the various sources and dimensions of efficacy to enhance their performance as a team. Upon closer consideration, the organizational structure of education is not much different from that of athletics. In team sports, individual athletes come together and work toward the common goal of a winning season. In education, teachers come together and work toward a common goal of student success. In both sports and education, collective efficacy is the perception of the individuals in a group that the group can achieve its goal. Therefore, education could capitalize on the information gained through studies in athletics to base its
foundational studies on the construct and bring collective teacher efficacy more fully into the 21st century.

The empirical research conducted on collective teacher efficacy has primarily employed a quantitative approach (Goddard 2001, 2002; Goddard et al., 2007; Goddard et al., 2000, 2004; Goddard & Skria, 2006). As a result of their work, Goddard et al. (2004) provided direction for future research based on theoretical developments and empirical evidence. While quantitative research has documented that collective efficacy beliefs are an influential aspect of an organization’s operative culture, the question remains of how perceptions of group capability influence organizational culture. In addition, Goddard et al., 2004 documented that much is unknown about perceived collective efficacy and the group-level extensions of its social cognitive underpinnings. For example, more research is needed to understand whether all sources of efficacy identified in Figure 1 (Sources of Collective Efficacy Beliefs) hold at the group level. Equally important, Goddard et al. (2004) identified a need for a better understanding of the plausible outcomes of perceived collective efficacy noted in Figure 1, resulting in a deeper understanding of how to improve organizational culture.

In summary, current research about collective teacher efficacy is still in its infancy (Goddard, 2001), although research in this field is emerging (Donohoo, 2017). Collective teacher efficacy is gaining more attention at the national and international levels (Ramos, Silva, Pontes, Fernandez, & Nina, 2014). As such, educational experts are beginning to delve into this concept in light of its documented positive impact related to educational organization. Ramos et al. have identified gaps similar to those found by Goddard (2001) as well as new perspectives for future researchers to pursue: for example, the need for additional research on the construct in general and to enlarge the field with a qualitative approach that is longitudinal in nature.
Therefore, this dissertation study explored the why and how behind the effects of collective teacher efficacy, specifically in an elementary school setting when using a job-embedded professional development model and adds to the body of research.

Figure 1. Proposed model of the formation, influence, and change or perceived collective efficacy in schools. (Goddard et al., 2004, p. 11).

Purpose of the Study

The purpose of this study is to examine the influence of a job-embedded professional development model on elementary teachers and their level of collective teacher efficacy. This study quantitatively assessed collective teacher efficacy levels and qualitatively recorded individual perceptions regarding collective teacher efficacy. Toward that end, this study was guided by three research questions.
Research Questions

This study was guided by the following research questions:

1. Does job-embedded professional development influence the collective efficacy beliefs of elementary teachers? If so, how?
2. What organizational components support or inhibit the development of collective efficacy beliefs of elementary teachers?
3. What role, if any, do the four primary sources of self-efficacy play when using a job-embedded professional development approach to develop collective efficacy beliefs of elementary teachers?

Significance of Study

Collective teacher efficacy was recently ranked as the number one factor influencing student achievement (Hattie, 2016). However, little is known about the underlying factors that influence or enhance levels of collective teacher efficacy. As a relatively young construct of study, collective teacher efficacy research is in its fundamental state and has been primarily based on quantitative examination (Goddard 2001, 2002; Goddard, et al., 2000; Goddard et al., 2004, 2007; Goddard & Skrla, 2006; Tschannen-Moran & Barr, 2004). The results of this study provide a needed qualitative probe into the construct of collective teacher efficacy and the school context.

The state of accountability in education is steadfast, as noted in the most recently updated educational policy the Every Student Succeeds Act (ESSA) signed by President Obama in December 2015 (U.S. Department of Education, 2015). Included in the policy modifications are
calls for greater teacher accountability, including not only the students in a teacher’s classroom but all students within a grade level and even a school unit. This requires teachers to work collaboratively in reaching consensus on desired student achievement goals. Collective teacher efficacy has been studied in education and has been found to have a positive correlation to student achievement (Bandura, 1993; Goddard et al., 2000; Hoy, Sweetland, & Smith, 2002; Moolenaar, Sleegers, & Daly, 2012; Tschannen-Moran & Barr, 2004). This study provides a deeper understanding of why collective teacher efficacy has a positive relationship with student achievement and how teachers and administrators can implement such positive influences.

Information gathered from this study contributes to the growing literature base of collective teacher efficacy. More specifically, this study will add to the underlying framework schools, administration, and teachers can use to facilitate collective teacher efficacy levels within their environment. The results further reveal the depth to which Bandura’s (1986) Social Cognitive Theory is embedded within this construct and can serve as a foundation for future research.

Theoretical Framework

This study used the assumptions about the performance of behaviors and learning consistent with social cognitive theory and sociocultural theory of learning.

Social Cognitive Theory

Social Cognitive Theory was selected as one of the lenses for this study based on Bandura’s (1986, 1997, 2001) idea of self- and collective efficacy. Through his research, Bandura identified four sources that can influence the development of collective efficacy beliefs:
mastery experiences, vicarious experiences, social persuasion, and physiological and emotional states (Bandura, 1995). Studies in these areas of efficacy development have found positive correlations among collective efficacy and entities such as student achievement, school improvement, teacher job stress, satisfaction, and level of commitment (Goddard, 2001; Goddard et al., 2000, 2004; Goddard et al., 2007; Klassen, 2010; Klassen et al., 2010; Ware & Kitsantas, 2007). These studies establish a foundation to expand empirical research exploring theories on the influences of the four sources of efficacy.

Goddard et al. (2000) took the initiative to establish a research-based collective teacher efficacy measure that was used in this dissertation study. The tool was based on Gibson and Dembo’s (1984) Likert-type scale, one of the most commonly used and well-researched instruments for assessing teacher efficacy. The original scale consisted of 30 items; however, Goddard et al. used the 16-item version most often used by researchers of teacher efficacy as a starting point for developing their scale. In the end, Goddard et al. assembled and field tested a 21-item scale that addressed group competence and task analysis related to collective efficacy using both positively and negatively worded questions.

Sociocultural Theory

The process of adult learning through a job-embedded professional development model (JEPD) evolved from the underpinnings of Vygotsky’s (1978) original sociocultural theory. Vygotsky sought a middle ground of taking environmental influences into account through its effect on human consciousness (Schunk, 2012). His theory stressed the point that learning and development cannot be dissociated from their context. Therefore, the way learners interact with people, objects, and institutions in their world transforms their thinking. Vygotsky’s essential
point is that learning emerges from the interactions with others and the environment surrounding the learner.

A sociocultural approach to professional development encompasses five principles that underlie and support a job-embedded professional development (JEPD) model for teacher learning and sustainable school change (Raphael, et al., 2014). These five principles include teacher agency, situationally appropriate, dialogical in practice, systemic in view, and sustained across time. Integrating these principles alone will not bring success in achieving sustainable school change. This type of professional learning requires starting with agreed upon goals and a thorough understanding of the goals by the participants for which the work is designed to achieve. JEPD is referred to as teacher learning grounded in the day-to-day teaching practice occurring during the school day that enhances teachers’ content-specific instructional practices (Croft, et al., 2010). JEPD is a reform-oriented forum of professional development currently being discussed in the literature (Ball & Cohen, 1999; Darling-Hammond & McLaughlin, 1995; Desimone, Porter, Garet, Yoon, & Birman, 2002; Peneul, Fisherman, Yamaguchi, & Gallagher, 2007; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). A detailed connection between sociocultural theory and JEPD is displayed in Figure 2.

The model of JEPD that used for this study incorporates all five key principles of a sociocultural approach to the professional development of teachers. The Five-Part Plan was developed and researched by Bradley (2015). The teachers were empowered by choosing the topic of learning they wished to explore as a team and the learning design to facilitate that learning. Learning took place within each teacher’s classroom, during common grade level planning time, and during school improvement days throughout the school year. When the teacher teams met, their time was spent discussing, analyzing, and planning for their next step.
Throughout the study teachers were encouraged to follow the systematic approach of plan-do-review. The study continued over the course of a school year, thus providing a sustained amount of time to achieve a step toward the overall goal, if not the goal itself. Detailed connections between sociocultural theory and JEPD have been generated by the researcher for the purpose of this study and are displayed in Figure 2.

<table>
<thead>
<tr>
<th>Sociocultural Approaches to Professional Development of Teachers</th>
<th>Job-Embedded Professional Development (JEPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Agency</td>
<td>Empowering teachers to make decisions about their learning based on the needs of their students.</td>
</tr>
<tr>
<td>Situationally Appropriate</td>
<td>Learning takes place in day-to-day practices within the classroom environment.</td>
</tr>
<tr>
<td>Dialogical Practice</td>
<td>Teachers have the opportunity to engage in meaningful conversations relevant to the professional learning at hand.</td>
</tr>
<tr>
<td>Systemic View</td>
<td>JEPD is organized as a systematic procedural approach to learning incorporating a cycle of plan, do, review, and repeat.</td>
</tr>
<tr>
<td>Sustained Across Time</td>
<td>JEPD takes on a time frame conducive to meeting the established goal and it maintained upon achievement.</td>
</tr>
</tbody>
</table>

Figure 2. Based on the alignment of sociocultural theory with JEPD. (Darling-Hammond & McLaughlin, 1995; Raphael et al., 2014).
Definitions

For the purpose of adding clarity, the following definitions are provided.

**Collective Teacher Efficacy (CTE):** The perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students (Goddard et al., 2000). The term belief is also used in this study and should be considered synonymous with perceptions. Collective efficacy beliefs are also used throughout this study and should be considered synonymous with collective teacher efficacy. Substitution of these terms reflects the various discussions on collective teacher efficacy in educational literature.

**Job-Embedded Professional Development (JEPD):** Refers to teacher learning that is grounded in day-to-day teaching practice and is designed to enhance teachers’ content-specific instructional practices with the intent of improving students learning (Darling-Hammond & McLaughlin, 1995; Hirsh, 2009).

**Learning Design:** Strategies that outline a process that guides adults in professional learning (Brown Easton, 2008).

**Learning Design Cycle:** A sequence of events in professional learning that includes planning, teaching, and reflecting on the results of a learning design (Bradley, 2015).

**Vertical Teams:** A group of instructors who span across grade levels and content specialties and come together for the sake of student improvement (Bradley, 2015).

Methodology

A mixed method design was used for this study. The researcher created a JEPD model consisting of three literacy teams engaging in collaborative work during three professional
development sessions. The sample consisted of vertical teams of educational professionals within one elementary school across the curricular spectrum.

Data collection methods for this study took the form of surveys, journals, and interviews. Pre- and post- surveys served to measure the presence of collective teacher efficacy and the impact of the professional development model on collective efficacy levels. Individual reflective journals provided an initial means to understand the thoughts of the teachers as they reflected on their participation in the job-embedded professional development model. The one-on-one interviews allowed for deeper probing into the teachers’ experiences. Quantitative data were examined through basic descriptive statistics looking for a relationship between collective teacher efficacy and job-embedded professional development. Qualitative data underwent a systematic approach of initial and focused coding considering emerging themes as further explanation of the quantitative data.

Organization of the Dissertation

This study is organized into five chapters. The first chapter presents an introduction to the study. The problem and purpose statement are identified along with the guiding research questions and a theoretical framework through which the topic was studied. The second chapter offers a review of the existing literature on collective teacher efficacy and job-embedded professional development. The third chapter explains the methods used to carry out the study. The fourth chapter illuminates the findings of the study. Concluding the organizational format of this dissertation is the fifth chapter, which contains a discussion of the findings, recommendations for practice, and suggestions for future research.
CHAPTER 2
LITERATURE REVIEW

Introduction

The purpose of this study is to examine the influence of a job-embedded professional development model on collective teacher efficacy of elementary teachers. This literature review provides a thorough understanding of the dissertation’s theoretical framework and constructs of collective teacher efficacy and job-embedded professional development.

Theoretical Framework

The social cognitive theory and the sociocultural theory establish the boundaries for examination of collective efficacy and job-embedded professional development (JEPD). The following section will provide an overview of each theory and its connection to the dissertation study.

Social Cognitive Theory

Bandura’s (1982; 1986; 2001) social cognitive theory is a unified theory of behavior change. The social cognitive theory explains human behavior as working within a framework of triadic reciprocity (Bandura, 1986). This means that the interaction of cognitive, behavioral, and environmental influences sways an individual’s behavioral response. Bandura and Cervone (1983) refers to these three modes of stimulus as individual agency, proxy agency, and collective
agency. Individual agency is when people exercise their own influence on behavioral responses. Proxy agency involves the process of a person incorporating others’ positive outcomes of within their own practices. Collective agency is taken from the conceptual idea that people work together to achieve goals for the improvement in their quality of life. A key to Bandura’s social cognitive theory is that agency is exercise through individual choice. The daily behaviors selected to grow and develop in one’s life are decided by that individual and not by an external community.

At the core of social cognitive theory are efficacy beliefs that individuals have about themselves (Bandura, 1982; 1986; 1997). Self-efficacy refers to the belief that a person has about their capacity to cognitively and behaviorally perform a specific task at a certain level of proficiency. It is important to note that the level of efficacy varies from task to task and is not representative of the belief one has in reference to a generalization about his/her overall ability level. Efficacy influences motivation, effort, and the level of challenge in aspired goals (Klassen, Tze, Betts, & Gordon, 2011; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Self-efficacy can correlate to teacher efficacy (Pajaries, 1996; Tschannen-Moran et al., 1998) in that teacher efficacy is the level of belief a teacher has in his/her ability to influence students. These beliefs are about one’s skills in instructional preparation and delivery, helping students reach desired outcomes, and maintaining professional skills effective for the 21st century classroom.

Bandura (1997) supports the concept that an individual is empowered to improve on their efficacy beliefs. Efficacy is not stagnant, but dynamic and evolving as individuals participate and observe in their daily activities. Bandura identified ways in which individuals, including teachers, can further develop their sense of efficacy. He recognizes four main influences of self-
efficacy: mastery experiences, vicarious experiences, verbal (social) persuasion, and physiological and affective state.

Bandura (1997) names mastery experiences as the most influential in elevating an individual’s perceived efficacy. He states that experiencing successes in various activities is pertinent in developing an individual’s sense of efficacy. Continuous success of a single experience amounts to efficacy or confidence in an individual’s ability to maintain proficiency of that specific task. If an individual experiences failure before a sense of efficacy is firmly established, then failure will undermine the effort in developing efficacy. When related to teaching, if a teacher experiences continual success in implementing one change in classroom practices, no matter the scale of success, the teacher will build efficacy for that particular task or skill and be motivated to further elaborate on change or instate a new change.

The second influence Bandura (1997) identifies as a having a positive impact on developing and sustaining efficacy is through vicarious experiences provided by social models. When individuals see others successfully performing the same task through perseverant efforts, the observer believes he/she, too, can accomplish the task. The key to vicarious experiences is that the observer believes the model is of the same knowledge and skill level. Further supporting the notion that if the model can be successful with adequate (or less than adequate) knowledge and skill, so can the observer. Thus, the reverse is also true. If a model is unsuccessful despite high effort, then the observed will believe the same is true for them. The closer the observer believes to have similarities with the model, the more direct an impact the model’s successes or failures will have. However, models can also influence observers to aspire to their level of knowledge and skill competence. Seeing the model succeed despite challenges can be more enabling to others than the skill of focus for observation.
Social persuasion is a third influence Bandura (1997) refers to as assisting in the development of efficacy. This influence involves the verbal assessment of others. If people are verbally persuaded that they have the mastery skills to succeed, they are more likely to exert the effort necessary to reach that goal. While positive verbal messages can be encouraging, negative verbal messages can be defeating. It is easier to decrease efficacy beliefs from criticism than it is to build them up through positive reinforcement. One must be careful in providing unrealistic verbal affirmations as they may lead to failure and less motivation by the receiving party. Words are not the only tool of use in social persuasion. Leaders should also establish an environment supportive of success, ensuring that their staff will not be set up for failure and that success can breed more success.

The final influence Bandura (1997) considers to strengthen people’s efficacy is that of the physiological and affective states of being. People measure their level of efficacy by the anxiety, stress, and or arousal they experience when debating the implementation of new behavioral practices (Tschannen-Moran & Chen, 2014). For those with high efficacy, these emotional and physical responses to stress are energizing and motivational. Teachers with low efficacy interpret these emotional and physical responses as signs of their vulnerability to poor performance. According to Bandura (1997), mood also affects the way an individual perceives his/her sense of efficacy. Positive moods enhance it, while negative moods deplete it.

Research on social cognitive theory has identified the existence of the relationship between human behavior and self-efficacy. Through his research, Bandura (1993; 1997) acknowledges collective efficacy as analogous to self-efficacy. According to Bandura (1997), “collective efficacy is concerned with the performance capability of a social system as a whole” (p. 469). In terms of education, collective efficacy refers to the beliefs and perceptions of
teachers, administrators, and staff to work together in achieving a common goal. Collective efficacy can be restricted to a building or can expand to the boundaries of a school district.

In summary, the social cognitive theory recognizes that an individual’s behavior can be changed and is influenced by one’s own experiences (individual agency), the individual successes of others (proxy agency), and the positive experiences of a group of individuals working together toward a common goal (collective agency). Individual behavior changes through a conscious choice to make a change. At the center of the social cognitive theory is the construct of efficacy, beliefs individuals have about themselves. Through his research, Bandura (1982; 1986; 2001) recognized collective efficacy to be analogous to self-efficacy.

Collective Efficacy

The growth and development of society depends on the next generation’s ability to recognize, understand, and apply skills vital to global economic survival. Therefore, in this era of accountability, schools are in need of strategies to enhance their current practices to meet the global demands society has placed on education. Research has shown that school achievement is significantly and positively related to collective efficacy (Bandura, 1993; Goddard et al., 2000), and as a result, collective teacher efficacy is seen as an important characteristic in the organizational composition of a school (Goddard, et al., 2000). It is in the best interest of school organizations to capitalize on the benefits of collective efficacy to achieve and sustain student success in development of 21st century skills.

In this literature review, self- and collective efficacy will be defined and explored through the lenses of psychology and education, and empirical research specifically on collective efficacy will be deconstructed and analyzed to support the development of a dissertation study.
Self- Efficacy in Psychology

Self-and Collective Efficacy Defined

The construct of collective efficacy is an extension of self-efficacy, a component of Bandura’s (1977) social cognitive theory; therefore, the conceptual framework and assumptions held about self-efficacy are also applied to collective efficacy (Bandura, 1977). While many have studied the construct of self-efficacy (Pajares, 1996, 1997; Ross, 1976; Rotter, 1966; Schunk, 1981, 1982), Bandura’s (1977) seminal piece is the foundation on which this discussion is based. The social cognitive theory is concentrated on human agency, or the ways in which people exercise a level of control over their own lives (Bandura, 1993). A fundamental element to the exercise of control is the construct of self-efficacy (see Figure 2.1).

![Figure 2.1. Social cognitive theory.](image)

Bandura (1977) defines self-efficacy as “the conviction that one can successfully execute the behavior required to produce the outcomes” (p. 79). Self-efficacy is different from outcome expectation in that outcome expectation refers to the connection of a behavior and a potential given result. Self-efficacy, then, is the belief in one’s ability to carry out that behavior in an effort to achieve the predicted result. Therefore, the strength of perceived self-efficacy is a
determinate of whether people will attempt to cope with difficult situations (Bandura, 1977). Bandura (1997) indicates that self-efficacy reduces anticipatory fears and inhibitions while positively affecting a person’s coping efforts once they are initiated. As a result, efficacy expectations “determine how much effort people will expend, and how long they will persist in the face of obstacles and adverse experiences” (Bandura, 1977, p. 80).

While self-efficacy focuses on one’s ability to exercise control over behaviors in his/her own life, collective efficacy is concerned with the performance capability of a social system as a whole (Bandura, 1993). A collective voice is instrumental in provoking a change for the better within a large social system (e.g., schools, local, state, federal government). Bandura (1997) defines collective efficacy 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” (p. 477). The product of the coordinated efforts of a group creates an emergent property that is greater than the sum of each individual (Bandura, 1997). Therefore, collective efficacy is greater than the sum of the members’ perceived personal efficacies.

Self-efficacy and collective efficacy have more elements in common than not. The difference between the two constructs is the unit of agency (Bandura, 1997). Self-efficacy focuses on an individual and one’s belief in his/her own abilities to carry out a task, whereas collective efficacy focuses on an individual’s perception of a group’s capabilities to carry out a unified goal or attainment as a cooperating member of that group. In-group activities, just like in athletic team performances, collective efficacy is not a rigid attribute (Bandura, 1997). The level of interdependence (e.g., gymnast/gymnastics team has a low level, while football has a high level) is one of many variables that fluctuate among members of the group. Members serving different positions, functions, or activities within a social system (e.g., athletic team or school)
may differ in how they view their group’s collective efficacy (Bandura, 1993). Although it is important to distinguish that the vital component of a shared belief is in agreement within groups rather than differences across groups (Bandura, 1997). With the exception of the unit of agency, self- and collective efficacy have similar sources, serve similar functions, and operate through similar processes (Bandura, 1997). These sources, functions, and processes are discussed next.

Sources of Self-Efficacy

Four sources contribute to the development of self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and emotional arousal (Bandura, 1977, 1986, 1993, 1997). Information relevant for judging self-efficacy beliefs is not subconsciously absorbed into one’s psyche. It takes an active cognitive process to reflect on stimuli and determine the value of its influence on one’s efficacy beliefs. Cognitive processing of efficacy information involves two separable functions: the type of information people attend to and use as indicators and the combination rules that people use to weigh and integrate efficacy information from different sources in constructing beliefs about their personal efficacy (1997). This section examines the characteristics of each source of efficacy beliefs and the processes governing the selection, interpretation, and integration of efficacy information into personal efficacy beliefs.

Mastery Experiences

Mastery experiences are the most influential source of efficacy information (Bandura, 1997). They provide the most authentic evidence of whether one can endure whatever it takes to succeed. Mastery experiences serve as “indicators of capability” (p. 79). Successful experiences increase efficacy, while repeated failures undermine it (Bandura, 1977, 1997). However, if
individuals only encounter less challenging experiences as the means through which to improve efficacy, when faced with an obstacle, they are more likely to give in and decide the experience is a failure because success did not come as quickly or easily as it had in the past. While unpleasant, difficulties and setbacks are beneficial for teaching that success comes with sustained persistence. An individual with high levels of efficacy understands that some results may be quick and easy while others may be challenging and take longer; therefore, time and effort do not diminish the level of perceived efficacy. In fact, overcoming previous challenges at a later time can strengthen the self-motivating drive to accomplish the most difficult obstacles through the practice of sustained effort.

An example of the influence of master experiences can be seen through the eyes of a doctoral student. In the beginning of the program, a doctoral student assumes a certain level of perceived efficacy. This perception is based on past successful experiences through sustained effort in undergraduate and graduate school. As the program begins, the doctoral student experiences a new and heightened level of demand. Relying on those past successful experiences, the doctoral student acknowledges that with additional sustained effort he/she will conquer these challenges, too. Therefore, the individual embraces his/her high level of self-efficacy and moves forward overcoming the mental and physical challenge of being a doctoral student. Seen through the eyes of a teacher, a teacher assumes a certain level of perceived self-efficacy when implementing a new instructional approach. This perception is based on past successful experiences obtained through sustained effort. As the program begins, the teacher experiences a new and heightened level of demand. Relying on those past successful experiences, the teacher acknowledges that with additional sustained effort he/she will conquer these challenges, too. Therefore, the individual embraces his/her high level of self-efficacy and
moves forward overcoming the mental and physical challenge of implementing a new instructional approach.

**Vicarious Experiences**

Vicarious experiences are provided through social models (Bandura, 1993). There are no absolute measures of adequacy; therefore, people must appraise their capabilities in relation to the attainments of others (Bandura, 1997). Seeing someone similar to themselves succeed as a result of sustained effort raises the observer’s belief that he/she possesses the same qualities to master desired activity. Therefore, efficacy is built on the concept that if others can do it, I can do it to. However, the reverse is also true. If this same model is unsuccessful, then the observer assumes the belief that he/she will also be unsuccessful, although most people seek out proficient models who possess the capabilities to which they aspire (Bandura, 1997). In essence, the impact of modeling on beliefs of personal efficacy is strongly influenced by perceived similarity to the models (Bandura, 1993). For example, the doctoral student looks to previous doctoral students (e.g. models) who have recently completely the various parts of the program of study as motivators to reassure that he/she can also reach that point of the program. These models are very similar to the doctoral student in that they have endured the same classes, projects, and process of the program while balancing full time employment and home/family duties and responsibilities.

**Verbal Persuasion**

Verbal persuasion speaks of the influence others have through language interactions supporting an individual’s capabilities for mastering a task (Bandura, 1997). It is easier to
sustain efforts through a challenge when a significant other expresses faith in one’s capabilities than if he/she conveys doubts. On the other hand, it is easier to undermine one’s capabilities when verbal persuasion unrealistically boosts efficacy and is then quickly discounted when failure occurs.

People are more likely to exercise their capabilities and put forth the necessary sustained effort as a result of verbal persuasion when the skills already reside within but have yet to be capitalized upon. Through persuasive suggestions, individuals mobilize these capabilities and activate self-regulatory means to achieve successful outcomes. However, Bandura (1977) indicates that without an authentic experience base, any amount of verbal persuasion will be ineffective to create efficacious beliefs because of the overall lack of general knowledge in skill performance. In the example of a doctoral student, receiving verbal persuasion from a professor or colleague within the program would heightened the student’s level of self-efficacy, motivating the student to work through and overcome the challenges of being a doctoral student.

Emotional Arousal

Individuals consider the level of emotional arousal experienced when judging their anxieties and vulnerabilities to poor performance (Bandura, 1993). Since high levels of arousals can be debilitating, individuals will expect success with those tasks that do not initiate a negative physical response. Negative physical responses can include fatigue, aches and pains, and mood changes. Body fatigue and aches and pain can be interpreted as signs of debility instead of necessary side effects on the way to success, while negative moods hinder perceived self-efficacy. To counter the negative physical response, one would do well to enhance his/her
physical status, reduce stress and negative emotional triggers, and correct misinterpretations of bodily states.

The doctoral student is in a constant state of emotional arousal while completing program requirements and balancing a full time position and home/family duties and responsibilities. Physical and emotional triggers are unavoidable; however, the doctoral student would be wise to correct the misinterpreted bodily states from signs of inability to perform to growing pains on the journey to wisdom and achievement.

**Triadic Reciprocal Causation**

Bandura (1977, 1986, 1997) introduces triadic reciprocal causation (see Figure 2.2) as an explanation of the functional dependence of events impacting one’s perception of self-efficacy.

![Figure 2.2. Triadic reciprocal causation.](image)

The three factors that make up this causation are internal personal factors, behavioral events, and environmental events. These factors do not necessarily share an equal strength in
impact on self-efficacy because their influence varies for different activities and under different circumstances. Bandura (1997) also indicates that it takes time for these causal factors to exert their influence. Therefore, all three factors do not occur simultaneously.

**Dimensions of Self-Efficacy**

Self-efficacy varies in three dimensions that have important performance implications (Bandura, 1977). One dimension is magnitude, which refers to the ordering of tasks according to the level of difficulty. Tasks are organized in categories of simple, moderate difficulty, or overly taxing and to be dealt with on the bases of perceived efficacy beliefs about each individual task rather than the sum of all tasks. A second dimension is generality or the degree of mastery attained from a task (Bandura, 1977). Experiences could stem from a limited level to a larger more general level that could in turn extend positive efficacy beliefs beyond the confines of that specific task. The third dimension is the strength or stability of self-efficacy beliefs. Weak efficacy beliefs are easily distinguished, while strong efficacy beliefs will remain during coping efforts despite discouraging experiences (Bandura, 1977).

The construct of collective efficacy is an extension of self-efficacy, which is considered a component of Bandura’s (1977) social cognitive theory (Bandura, 1977). Self-efficacy refers to one’s beliefs in his/her abilities to complete a given task, while collective efficacy refers to a group’s ability to perform a unified task. Attainment of efficacy is a result of the triadic reciprocal causation, which explains how personal, behavioral, and environmental factors play a role in the development of one’s self-efficacy.

Thus far, self- and collective efficacy have been explored and connected in the fields of athletics and psychology. In the following section, self- and collective efficacy will be defined
through the lens of education and include a methodological analysis of past research, specifically in the area of collective efficacy, the targeted construct for the developing dissertation study.

**Self-Efficacy in Education**

Efficacy has been primarily explored in education through student self-efficacy, teacher self-efficacy, and the collective efficacy of a school. Studies have shown that efficacy beliefs contribute to the development of cognitive competencies that affects academic achievement (Bandura, 1997; Multon, Brown, & Lent, 1991; Pajares, 1996, 1997; Schunk & Pajares, 2005). This section will discuss each of the efficacy domains and the research studies conducted within each domain. (see Figure 2.3)

Figure 2.3. Hierarchy of efficacy in education.

**Student Efficacy**

Student efficacy refers to the “beliefs in [oneself] to master different academic subjects” (Bandura, 1997, p. 214). Just like self-efficacy, the level of self-efficacy perceived by a student
is task dependent; therefore, a student can feel efficacious in one element of an assignment, project, or process but not in another. Studies have shown efficacy to have various effects in the educational setting (Bandura, 1993, Pajares 1996, 1997; Schunk, 1990, 1991). The effort and task performance put forth by students are directly related to students’ perceived levels of self-efficacy (Bandura & Cervone, 1983, 1986; Schunk, 1995). Students with high self-efficacy will exert effort in times of difficulty and persist at a task when they have the required skills (Schunk, 2012).

Self-efficacy also has an important influence on motivation and achievement (Multon et al., 1991; Pajares, 1996, 1997; Schunk & Pajares, 2005). When viewing motivation and achievement, efficacy beliefs are said to vary in that on any given day efficacy beliefs in a task may change due to personal or external environmental influences. Self-efficacy hinges in part on students’ abilities (Schunk, 2012). For example, high ability students may feel more efficacious about learning compared to low ability students. In this situation, efficacy is not synonymous with ability.

Teacher Efficacy

Teacher efficacy is relevant to teachers as well as students (Bandura, 1997; Pajares 1996; Tschannen-Moran et al., 1998). Teacher efficacy is the “teachers’ beliefs in their personal efficacy to motivate and promote learning in their students” (Bandura, 1997, p. 214). This is also identified as instructional efficacy and defined by Schunk (2012) as “personal beliefs about one’s capabilities to help students learn” (p. 153).

Research shows that teachers’ instructional efficacy can have an impact on students’ self-efficacy (Gibson & Dembo, 1984; Woolfolk & Hoy, 1990; Woolfolk, Rosoff, & Hoy, 1990).
Teachers who believe they have the ability to teach all students despite social, economic, and academic challenges demonstrate high levels of efficacy. These teachers create learning environments that promote mastery experiences by students, thus increasing students’ perceived self-efficacy. Studies have shown a positive relationship between teacher efficacy and an increase in student achievement resulting from an environment fostering mastery experiences for students (Anderson, Greene, & Loewen, 1988; Armor, Conroy-Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zellman, 1976; Ashton & Webb, 1986; Ross, 1992, 1994). Studies have also shown that a teacher’s sense of efficacy is especially influential on young children because their beliefs about their capacities are not yet fully developed and their ability to use social structures to compare and motivate their capabilities is not yet in place (Anderson et al., 1988). Therefore, when teachers use means of persuasion rather than authoritarian control to support the development of their students’ intrinsic interests and academic development, an increase in student achievement will result. For example, if a student is unmotivated due to insufficient skills, a highly efficacious teacher would extend additional effort to help the student attain the necessary skills to complete a designated activity. A low efficacious teacher would view the student as unteachable due to the lack of motivation or home support.

A teacher’s efficacy level also impacts his/her resilience in the face of changes in the educational system (Bandura, 1997). Efficacy impacts their receptivity to, and adoption of, educational change initiatives no matter how large or small (Olivier, 1985). As teachers are provided support to embrace change and make it their own, efficacy levels rise in the related facet of their occupation. At the same time, a lack of support undermines the development of teacher efficacy, stalling the growth of the teacher as a professional. For example, the transformation of state standards to the Common Core State Standards can be an overwhelming
educational change. If school administration provides developmental support through breaking down the adoption into smaller, manageable ideas, efficacy can be enhanced through the mastery experiences, vicarious experiences, verbal persuasion, and positive physical arousal experienced by teachers through this manageable approach.

Teacher efficacy is a multifaceted entity in which teachers demonstrate various levels of efficacy between tasks (Bandura, 1997). Teaching is more than just successful delivery of instructional material. It also encompasses a belief in one’s ability to maintain an orderly classroom, enlist the help of parents, and counteract the influences of poor social models. As a result, multifaceted teacher efficacy scales have evolved to more accurately measure the domain of function the researcher is studying (Bandura, 1990; Tschannen-Moran et al., 1998).

**Collective Teacher Efficacy**

Teachers function collectively within a school setting rather than in isolation. They encounter group challenges requiring sustained collective effort to produce any significant change (Bandura, 1989). To that fact, perceived collective efficacy is 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 attainment” (Bandura, 1989, p. 477). Simply stated collective teacher efficacy is “the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students” (Goddard et al, 2000, p. 480). The collective belief focuses on the group’s functional capabilities or the “product of the interactive and coordinative dynamics of its members” (Bandura, 1997, p. 476). Many factors contribute to the interactive effects such as the mix of knowledge and competencies in the group, how the group is structured and its activities coordinated, how well the group is led, the strategies adopted by the group, and
whether the members engage with one another in a respectful, collaborative way. Therefore, perceived collective efficacy is “an emergent group-level attribute rather than simply the sum of the members’ perceived personal efficacies” (Bandura, 1997, p. 478).

The learning community’s approach to difficult challenges is related to the strength of their collective efficacy beliefs (Donohoo, 2017). Their efficacy beliefs can impact the types of learning environments created in school and the teaching behaviors demonstrated by staff. Hattie (2016) identified collective teacher efficacy ranking as the number one influence impacting student achievement. Improving collective teacher efficacy would be advantageous based on its remarkable list of positive consequences.

- Greater effort and persistence by staff
- Willingness to try new approaches based on effective pedagogy
- Conveys high expectations to students (teacher expectations)
- Fosters learner autonomy (student-centered teaching)
- Decreases disruptive student behavior
- Increases teacher commitment
- Enhances teacher-parent relationship – parental involvement (Donohoo)

In light of the unique challenges education presents to teachers, developing high levels of collective teacher efficacy is difficult but not impossible (Bandura, 1997). Identifying the social environment of the schools in terms of collective efficacy acknowledges that the construct is grounded in a theory and body of knowledge about psychosocial elements. This is important in the development and sustainment of collective efficacy in that it provides explicit guidelines for how to structure interventions to make changes in the social system. For this reason, the magic
of being a well-oiled athletic team or a highly successful school can be attributed to the implementation and development of the four sources of self-efficacy (e.g., mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states). Equally important is the attribution of the reciprocal causality component of self-efficacy because it is believed that once developed, collective teacher efficacy will thrive.

While the topic of teacher efficacy has been established in the research community, studying the construct of collective teacher efficacy is still evolving (Bandura, 1997; Goddard, 2001; Pajares, 1996; Ramos et al., 2014). Initial studies have revolved around identifying collective teacher efficacy as a neglected construct in the study of schools with regard to student achievement (Goddard, 2001). For this reason the meaning, measure, and impact of collective teacher efficacy on student achievement is explored in greater detail through the work of Goddard et al. (2000), Goddard (2002), and Goddard et al., (2007). More recent studies have expanded collective teacher efficacy to include its predictive value of professional commitment and its mediating role in teacher stress and job satisfaction (Klassen, 2010; Klassen, Usher, & Bong, 2010; Ware & Kitsantas, 2007). The following paragraphs provide a detailed look into research studies focused on collective teacher efficacy.

Collective efficacy research. In systematically planning the study, one vital element was to consider the evidence and information provided by prior studies. This section dissects past research conducted on collective teacher efficacy focusing on the methodological approaches and measures.

Research design. As a young construct of study, researchers have relied heavily on a quantitative methodological approach to study collective teacher efficacy (see Table 2.1).
Table 2.1
Summary of Analyzed Research Articles for Research Design

<table>
<thead>
<tr>
<th>Article</th>
<th>Design</th>
<th>Evidence of Research Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goddard et al., (2000)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics&lt;br&gt;- Hierarchical Linear Model&lt;br&gt;- Measures of Variability&lt;br&gt;- Use of ( t ) Statistics&lt;br&gt;- Correlation tests</td>
</tr>
<tr>
<td>Goddard &amp; Skrla, (2006)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics&lt;br&gt;- Hierarchical Linear Model&lt;br&gt;- Two factor ANOVA&lt;br&gt;- Cronbach’s alpha</td>
</tr>
<tr>
<td>Goddard et al., (2007)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics&lt;br&gt;- Hierarchical Linear Model&lt;br&gt;- Cronbach’s alpha&lt;br&gt;- Chi-square statistic</td>
</tr>
<tr>
<td>Ware &amp; Kitsantas, (2007)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics&lt;br&gt;- Exploratory factor analysis&lt;br&gt;- Multiple-regression analysis&lt;br&gt;- Correlation tests</td>
</tr>
<tr>
<td>Klassan, (2010)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics&lt;br&gt;- MANOVA tests&lt;br&gt;- Correlations tests</td>
</tr>
<tr>
<td>Klassen et al., (2010)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics&lt;br&gt;- MANOVA tests&lt;br&gt;- Bivariate Correlations</td>
</tr>
</tbody>
</table>

Quantitative research is a means for testing objective theories by examining the relationship among variables (Creswell, 2009). In Goddard et al.’s (2000) seminal study, they first established collective teacher efficacy as a construct, worked to establish a valid and reliable
measurement tool, and then connected it to student achievement in mathematics and reading using a hierarchical linear model quantitative approach. Studies that followed were conducted to test the validity and reliability of Goddard et al.’s collective efficacy tool and its positive correlation to student achievement, again using a hierarchical linear model of quantitative research design (Goddard, 2001; Goddard, 2002; Goddard & Skrla, 2006; Goddard et al., 2007; Tschannen-Moran & Barr, 2004). As collective teacher efficacy has grown in popularity, additional quantitative studies have been launched to examine its influence as a predictor of teacher commitment, teacher stress, and teacher job satisfaction (Klassen, 2010; Klassen et al., 2010; Ware & Kitsantas, 2007).

A review of empirical research on collective teacher efficacy demonstrates the dominance of a quantitative research design. Goddard (2001, 2002) and Goddard et al. (2000) provided some of the groundbreaking studies most collective efficacy studies reference. Noting the years in which he studies were conducted supports the idea of collective efficacy being a young construct in the field of educational research. Next is a closer look at the participants of these landmark studies.

Participants. All of the reviewed empirical studies employed teachers as their primary participants (see Table 2.2).

The schools were mostly large Midwestern urban school districts. Sample sizes ranged from 452 to 26,000 participants and a convenience or purposeful random sampling approach was employed. Teachers were primarily elementary level, although some studies used secondary teachers as well. Guidelines were established for participants to qualify for study. Student data used to correlate with collective teacher efficacy were collected from the central office of the
participating school districts, focusing on grades three, four, and/or five. Data were taken from
district or state regulated testing sessions.

While student achievement is at the forefront of education, these studies of collective
efficacy take a closer look at the role teachers, as an organizational group, play in the success of
all students within their school. Next, is a closer look at the methods of data collection used in
the selected empirical studies on collective teacher efficacy.

Table 2.2
Summary of Participants

<table>
<thead>
<tr>
<th>Research</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goddard et al. , (2000)</td>
<td>- 452 Elementary Teachers</td>
</tr>
<tr>
<td></td>
<td>- One large urban Midwestern school district</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td>Goddard, (2001)</td>
<td>- 452 Elementary Teachers</td>
</tr>
<tr>
<td></td>
<td>- One large urban Midwestern school district</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td>Goddard, (2002)</td>
<td>- 452 Elementary Teachers</td>
</tr>
<tr>
<td></td>
<td>- One large urban Midwestern school district</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td></td>
<td>- 1/3 of the teachers within each school</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td>Goddard &amp; Skrla, (2006)</td>
<td>- 1,981 Kindergarten through 8th grade teachers</td>
</tr>
<tr>
<td></td>
<td>- Diverse urban school district in the Southwest</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td>Goddard et al., (2007)</td>
<td>- 452 Elementary Teachers</td>
</tr>
<tr>
<td></td>
<td>- One large urban Midwestern school district</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td>Ware &amp; Kitsantas, (2007)</td>
<td>- 26,257 public school teachers</td>
</tr>
<tr>
<td></td>
<td>- Convenience Sampling</td>
</tr>
<tr>
<td></td>
<td>- Schools in Canada</td>
</tr>
<tr>
<td></td>
<td>- Purposeful Random Sampling</td>
</tr>
<tr>
<td>Klassen et al., (2010)</td>
<td>- 500 Elementary and Middle School teachers</td>
</tr>
<tr>
<td></td>
<td>- From Canada, United States, and Korea</td>
</tr>
<tr>
<td></td>
<td>- Purposeful Random Sampling</td>
</tr>
</tbody>
</table>
Method of data collection. The strategy of inquiry used by all the reviewed empirical studies was a Likert-type scale survey. Gibson and Dembo (1984) established a measurement tool for teacher self-efficacy, and in their seminal study, Goddard et al. (2000) used Gibson and Dembo’s tool to create and test the validity and reliability of their 21-item Likert-type collective efficacy scale (see Table 2.3).

In his 2002 study, Goddard development a short form for the measurement of collective efficacy based on the original 21-item Likert scale, which proved to be both valid and reliable in measuring collective teacher efficacy. This revised tool served as the means of data collection in Goddard and Skrla’s (2006) study of the influences of school social composition on teachers’ collective efficacy beliefs. However, Tschannen-Moran and Barr (2004) further refined the Collective Teacher Efficacy Belief Scale (see Table 2.5), claiming that this measure is conceptually superior to previous measures because it assesses teachers’ beliefs in their collective capabilities rather than the external factors that influence student achievement, as seen in Goddard et al.’s (2000) important first steps in measuring collective efficacy.

Table 2.3

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>If a child doesn’t learn something the first time teachers will try another way.</td>
</tr>
<tr>
<td>2.</td>
<td>Teachers in this school are skilled in various methods of teaching.</td>
</tr>
<tr>
<td>3.</td>
<td>Teachers here are well prepared to teach the subjects they are assigned to teach.</td>
</tr>
<tr>
<td>4.</td>
<td>Teachers in this school really believe every child can learn.</td>
</tr>
</tbody>
</table>

Table continued on next page
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>If a child doesn’t want to learn teachers here give up.</td>
</tr>
<tr>
<td>6</td>
<td>Teachers here fail to reach some students because of poor teaching methods.</td>
</tr>
<tr>
<td>7</td>
<td>Teachers here don’t have the skills needed to produce meaningful student learning.</td>
</tr>
<tr>
<td>8</td>
<td>Teachers in this school have what it takes to get the children to learn.</td>
</tr>
<tr>
<td>9</td>
<td>Teachers in this school are able to get through to difficult students.</td>
</tr>
<tr>
<td>10</td>
<td>Teachers here are confident they will be able to motivate their students.</td>
</tr>
<tr>
<td>11</td>
<td>The lack of instructional materials and supplies makes teacher very difficult.</td>
</tr>
<tr>
<td>12</td>
<td>Teachers in this school do not have the skills to deal with student disciplinary problems.</td>
</tr>
<tr>
<td>13</td>
<td>Teachers in this school think there are some students that no one can reach.</td>
</tr>
<tr>
<td>14</td>
<td>The quality of school facilities here really facilitates the teaching and learning process.</td>
</tr>
<tr>
<td>15</td>
<td>Home life provides so many advantages they are bound to learn.</td>
</tr>
<tr>
<td>16</td>
<td>These students come to school ready to learn.</td>
</tr>
<tr>
<td>17</td>
<td>Drug and alcohol abuse in the community make learning difficult for students here.</td>
</tr>
<tr>
<td>18</td>
<td>The opportunities in this community help ensure that these students will learn.</td>
</tr>
<tr>
<td>19</td>
<td>Students here just aren’t motivated to learn.</td>
</tr>
<tr>
<td>20</td>
<td>Learning is more difficult at this school because students are worried about their safety.</td>
</tr>
<tr>
<td>21</td>
<td>Teachers here need more training to know how to deal with these students.</td>
</tr>
</tbody>
</table>

(Gibson & Dembo, 1984)
Table 2.4
Collective Teacher Efficacy Belief Scale (CTEFB)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>How much can teachers in your school do to produce meaningful student learning?</td>
</tr>
<tr>
<td>2.</td>
<td>How much can your school do to get students to believe they can do well in schoolwork?</td>
</tr>
<tr>
<td>3.</td>
<td>To what extent can teachers in your school make expectations clear about appropriate student behavior?</td>
</tr>
<tr>
<td>4.</td>
<td>To what extent can school personnel in your school establish rules and procedures that facilitate learning?</td>
</tr>
<tr>
<td>5.</td>
<td>How much can teachers in your school do to help student master complex content?</td>
</tr>
<tr>
<td>6.</td>
<td>How much can teachers in your school do to promote deep understanding of academic concepts?</td>
</tr>
<tr>
<td>7.</td>
<td>How well can teachers in your school respond to defiant students?</td>
</tr>
<tr>
<td>8.</td>
<td>How much can school personnel in your school do to control disruptive behavior?</td>
</tr>
<tr>
<td>9.</td>
<td>How much can teachers in your school do to help student think critically?</td>
</tr>
<tr>
<td>10.</td>
<td>How well can adults in your school get students to follow school rules?</td>
</tr>
<tr>
<td>11.</td>
<td>How much can your school do to foster student creativity?</td>
</tr>
<tr>
<td>12.</td>
<td>How much can your school do to help students feel safe while they are at school?</td>
</tr>
</tbody>
</table>

(Goddard et al., 2000)

Many of the early studies focused on the development of a valid and reliable measurement tool and on establishing a positive correlation with student achievement. This groundwork brought attention to a construct not yet fully explored in educational research, thereby opening the door to relationships between collective teacher efficacy and other organizational constructs.
Tschannen-Moran and Barr’s (2004) Collective Teacher Efficacy Belief Scale (CTEBS) was employed in Ware and Kitsantas (2007) study of teacher and collective efficacy beliefs as predictors of professional commitment and Klassen et al.’s (2010) study of collective efficacy and teacher job stress and satisfaction. As one can see in Table 2.5, an overabundance of collective efficacy studies utilizes the strategy of inquiry known as survey research.

Table 2.5
Overview of Methods of Data Collection

<table>
<thead>
<tr>
<th>Research</th>
<th>Methods of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goddard et al., (2000)</td>
<td>- 21-item Likert-type Collective Teacher Efficacy (CTE) Scale</td>
</tr>
<tr>
<td>Goddard, (2001)</td>
<td>- 21-item Likert-type Collective Teacher Efficacy (CTE) Scale</td>
</tr>
<tr>
<td>Goddard, (2002)</td>
<td>- 21-item Likert-type Collective Teacher Efficacy (CTE) Scale</td>
</tr>
<tr>
<td></td>
<td>- 12-item Likert-type Collective Teacher Efficacy Scale</td>
</tr>
<tr>
<td>Tschannen-Moran &amp; Barr, (2004)</td>
<td>- 12-item Likert type Collective Teacher Efficacy Belief Scale</td>
</tr>
<tr>
<td>Goddard &amp; Skrla, (2006)</td>
<td>- 12-item Likert-type Collective Teacher Efficacy Scale</td>
</tr>
<tr>
<td>Goddard et al., (2007)</td>
<td>- 6-item Likert-type scale assessing teacher collaboration</td>
</tr>
<tr>
<td>Klassen, (2010)</td>
<td>- 12-item Likert type Collective Teacher Efficacy Belief Scale</td>
</tr>
<tr>
<td>Klassen et al., (2010)</td>
<td>- 12-item Likert type Collective Teacher Efficacy Belief Scale</td>
</tr>
</tbody>
</table>
Application to the Study

On examining past research on collective teacher efficacy, I have taken into consideration the different approaches to research design, participants, and methods of data collection. The literature base serves as the foundation on which to build my study on collective teacher efficacy. I will use the standing empirical research as degrees of evidence that a positive and significant relationship exists between collective teacher efficacy and student achievement. These assumptions will allow the study to focus on Goddard et al.’s (2000) theorized components and development of collective teacher efficacy (see Figure 2.4).

Figure 2.4. A simplified model of collective teacher efficacy. (Goddard et al., 2000 p. 486)

Goddard et al. (2000) theorized, “The consequences of high collective teacher efficacy will be acceptance of challenging goals, strong. Organizational effort, and a persistence that leaders to better performance (p. 486). The study also stated that “once established the collective efficacy of a school is a relatively stable property that requires substantial effort to change” (p. 486).
In regard to research design, all empirical studies on collective teacher efficacy have taken a quantitative approach (Goddard, 2001, 2002; Goddard et al., 2004; Goddard & Skrla, 2006; Goddard et al. 2007; Klassen, 2010; Ware & Kitsantas, 2007). This dissertation will employ a mixed method research design to allow the researcher to quantitatively measure collective teacher efficacy levels while delving further into the findings to answer questions such as how and why. The addition of a qualitative approach will expand the current literature on collective teacher efficacy.

Information about methods of data collection led to the discovery of a valid and reliable measurement tool for collective teacher efficacy. The study will utilize Tschannen-Moran and Barr’s (2004) 12-item Likert-type Collective Teacher Belief Scale. The survey has evolved from its initial conception by Goddard et al. (2000), who began the process of establishing a valid and reliable tool by employing a panel of experts to ensure that items selected for inclusion in the survey adequately represented the content of collective teacher efficacy. From there, Goddard et al.’s (2000) study and those by Goddard (2001, 2002) and Tschannen-Moran and Barr continued the rigorous course of testing and refining a valid and reliable means of measurement for collective teacher efficacy.

While the studies examined for this literature review focused on a correlational relationship between collective teacher efficacy and student achievement, the analytic method used to establish a collective efficacy score at the school level will be pertinent to the study. In these studies, a two-stage process was utilized to aggregate the items on the collective efficacy survey to result in a mean score at the school level. For example, in Goddard’s (2001) study, he used a 21-item collective efficacy scale. The first stage calculated a mean score for each of the 21 scale items for each school. Stage two took the 21 mean scores and calculated an average to
yield an overall collective efficacy scale score for each school. This two stage analytic method will be applied to the study, as collective teacher efficacy will be measured pre- and post-treatment implementation.

While research on collective teacher efficacy is minimal, it is receiving increased attention because of its reflectiveness of 21st century skills, curricula, and standards critical to effective school reform (Bandura, 1993, 1997; Goddard, 2001; Pajares, 1997). Because of the degrees of evidence that have been provided by the seminal studies, collective teacher efficacy is a construct worthy of additional investigation.

**Summary**

This section has presented an overview of the definitions of self- and collective efficacy in the domains of psychology and education. Within the discussion were past research, findings, and steps for future research regarding each domain within the self- and collective efficacy construct. Deconstruction of existing research with a focus on analysis of research design, methodological approaches and measurement tools for collective teacher efficacy was presented. This literature review will now turn to the second construct of focus in this study.

**Sociocultural Theory**

The ultimate goal of any school improvement plan is to build the capacity for sustainable advances in teaching and learning (Raphael, et al., 2013). This process often includes professional development for the teachers and staff, as the term professional development suggests a form of learning that goes beyond training to use programs and processes authentically (Raphael, et al., 2014). In theory professional development activities should
enhance the work/learning environment; however, Webster-Wright (2009) contends that professional development ignores the importance of situating learning in authentic problems of practice where there are multiple ways professionals can learn and grow. While scholars (e.g., Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Hubbard, Mehan, & Stein, 2006; Lai, McNaughton, Amituanai-Toloa, Turner, & Hsiao, 2009; McLaughlin & Tablert, 2006) have recognized the importance and challenges of professional development that support sustainable school change Taylor et al. (2011) have identified a few successful examples. Raphael et al. (2013, 2014) suggest that it is this evolution of developing new and deeper understanding that leads to sustainable school improvements. These positive examples are based in principles consistent with the sociocultural theory.

Sociocultural theory is deeply rooted in the underpinnings of Vygotsky’s (1978) original work. He emphasized that socially meaningful activity was an important influence on human consciousness (Bredo, 1997; Kozulin, 1986; Tudge & Winterhoff, 1993). He sought a middle ground between behaviorists and introspectionists by taking environmental influences into account through their effect on consciousness (Schunk, 2012). Vygotsky emphasized the interaction of interpersonal (social), cultural-historical, and individual influences as the key to human development (Tudge & Scrimsher, 2003). He believed that interactions with persons in the environment (e.g. collaboration) stimulated developmental processes and fostered cognitive growth (Schunk, 2012). The cultural-historical aspect clarified the view that learning and development cannot be dissociated from their context, as Vygotsky deemed the social environment vital for learning and thought that social interactions transformed learning experiences. A summary of major points in Vygotsky’s (1978) theory appears below (Meece,
2002); however, simply stated, a sociocultural theory overview is that what is learned emerges from, but is not reducible to, interactions with others (Raphael et al., 2014).

- Social interactions are critical; knowledge is co-constructed between two or more people.
- Self-regulation is developed through internalization (developing an internal representation) of actions and mental operations that occur in social interactions.
- Human development occurs through the cultural transmission of tools (language, symbols).
- Language is the most critical tool. Language develops from social speech, to private speech, to covert (inner) speech.
- The zone of proximal development (ZPD) is the difference between what children [individuals] can do on their own and what they can do with assistance from others. Interactions with adults and peers in the ZPD promote cognitive development. (Meece, 2002)

In Meece’s (2002) final key point of Vygotsky’s (1978) theory, she identifies a well-known phenomenon associated with Vygotsky: Zone of Proximal Development. It is from Meece’s study that Harré (1983) constructed and introduced the Vygotsky space to represent two critical dimensions in the learning process that occur in professional development with a sociocultural lens (Raphael et al., 2014). The first is the movement from social to individual learning activities; the second is the scope from public to private displays of learning. When integrated (see Figure 2.5), four quadrants emerge (QI-QIV) and encapsulate “a process through which cultural practices are internalized by individuals, transformed in the context of individuals needs and uses, then externalized (shared) in ways that may be taken up by other” (Gallucci, 2008, p.7).
Particular language and activity practices define movement across the quadrants, and the cycle through these quadrants is iterative rather than linear or cyclical (Raphael, 2014). In QI (public and social) a more knowledgeable other has the goal of introducing new constructs or pedagogical tools (Raphael et al., 2014). Participants are given the responsibility for making sense of the new information, understanding it, and enacting the ideas in their own practice. In QII (private and social), the focus is on the participants’ sharing their adaptations and transformation practices of the newly acquired information from their given situations (Raphael et al., 2014). This is the opportunity to discuss tried, tested, adapted, and transformed practices for reflection within a collaborative group. In QIII (private and individual), participants make new discoveries by applying the content to their individual settings and transforming what they have learned and practiced (Raphael et al., 2014). Once teachers go public with their individual experiences and transformations, QIV (individual and public) is reached. Movement from QI to
QII and QIII occurs when teachers engage with one another to transform new ideas and adapt them to their particular practice (Raphael et al., 2014). Interaction with others is a crucial component to the continuum. Thus, movement from QII and QIII to QIV represents the process of making public those transformations in cultural practices. Public notice may take the form of sharing dialogue or actions with colleagues, written lesson plans, presenter of professional development, or publication in a professional journal. For example, in Q1 of the Vygotsky space, on the first day in a series of professional development days an expert presents to a group of teachers new best practices when teaching small group instruction. During the presentation teachers are privately internalizing the new information for understanding and beginning to make plans for implementation into their classroom practices. On day two of the professional development series, teachers are asked to share how the new information was transformed into practical applications within their classrooms (QII, QIII). This opportunity focuses on discussing experiences within a collaborative group. Teachers begin to make new discoveries about applications upon listening to their colleagues. The goal is to return to the classroom improving upon practices with the new ideas gathered from the collaborative discussion. This private and public experience incorporates QII, QIII, and QIV. Therefore, movement among the quadrants is continual, rather than linear or cyclical. It is this ownership over compliance and conversation over transmission that supports deeper understanding of content that leads to sustainable school change efforts.

There are five principles that underlie and support successful movement among the quadrants of the Vygotsky space: agency, situated, dialogue, systemic, and sustained. The sociocultural approach to professional development incorporates these five principles. The first is teacher agency. Engaging teachers in the professional development leads to ownership,
agency, and shared understanding of the process and products of the professional development (Au, 2013; Johnston-Parsons, 2012). The second principle is being situated. Professional development that is situated in the daily activities of teachers seeks to address authentic problems of practice. Being situated reflects two key ideas in sociocultural approaches to professional development (Raphael et al., 2014). One, it is the extension of the agency principle, and two, it is consistent with the research on learning within communities of practice (e.g. Brown, Collins, & Duguid, 1989; Clancey, 1997; Lave & Wenger, 1991; Robbins & Aydede, 2009; Schatzki, Cetina, & von Savigny, 2001).

The third principle of dialogue refers to the importance of discussion as a means for engaging in inquiry (Raphael et al., 2014). Professional development that provides teachers the opportunity for meaningful conversations facilitates the process of adaptation and transformation of the newly acquired information (Johnston-Parsons, 2012; Pearson, 1985; Routman, 2012). The fourth principle values a systemic approach to professional development. A systemic approach focuses on a common goal for all stakeholders, delivering a consistent message throughout the initiative (McLaughlin & Talbert, 2006; Talbert, 2009; Wood, 2007). Au (2005) and Raphael (2010) have identified the school as the most promising systematic unit.

The fifth and final sociocultural approach of professional development is that of sustained professional development. This principle is two-fold (Raphael et al., 2014). The first sense relates back to being systemic. To be systemic, professional development must be sustained over time (Cambone, 1995; Collinson & Cook, 2001; Darling-Hammond et al., 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001). Along with occurring over time, the professional development should be an ongoing process of shifting between whole-group and small-group sessions (Kruse & Louis, 1997). Being sustained also refers to the extent to which professional
development contributes to the sustainability of improved practice and positive results (Birman, Desimone, Porter, & Garet, 2000; Coburn, 2003). These five principals of a sociocultural approach to professional development will play a vital role in the dissertation study.

Summary

The sociocultural theory lens of this study began by identifying its contribution to sustained school change through professional development measures and the theoretical underpinnings of Vygotsky’s (1978) original theory. Direct application to the study came through the examination of Harré’s (1983) Vygotsky’s Space and its description of a sociocultural approach to the professional development of teachers. The analysis of the sociocultural theory as a theoretical lens for this dissertation concludes with the identification and explanation of the five principles present in a sociocultural approach to professional development.

Job-Embedded Professional Development

Over the decades, the focus of education has moved from students being able to understand basic reading, writing, and math to the current need to meet national standards while incorporating the use of technology to enable all students to “possess higher order thinking skills needed to succeed in the 21st century” (Darling-Hammond et al., 2009, p. 2). The purpose of this section is to define staff development, professional development, and job-embedded professional development (JEPD); to examine past research using a JEPD approach to teacher learning; and to apply acquired information to a dissertation study.
The term staff development is used to imply a training model approach to teacher learning in which direct one-day instructional workshops address content knowledge and practical application of perceived teacher deficits (Little, 1993). In this conception, the goal of staff development was to improve the pedagogical knowledge of teachers in the disciplines they taught (Lieberman & Miller, 2014), and therefore, additional training in the form of workshops provided by experts in the field is needed. Subject matter for the workshops is pre-determined and scheduled by the district’s central administration, and subsequent sessions that evolve from teacher practice of the initial training rarely occur. According to Wei, Darling-Hammond, Andree, Richards, and Orphanos (2009), changes in staff development needs have been identified and acknowledged since the 1990s; however, 90% of teachers continue to engage in these traditional workshop/conference learning format that follows the above mentioned training model approach (e.g. Anders, Hoffman, & Duffy, 2000; Lieberman & Miller, 2000, 2007; Little, 2006; McLaughlin & Talbert, 1993; Talbert, 2010). While a staff development approach to teacher learning is still used by many districts today, a more contemporary approach, referred to as professional development, is evolving.

The National Staff Development Council (NSDC) defines professional development as “a comprehensive, sustained, and intensive approach to improving teachers’ and principals’ effectiveness in raising student achievement” (Learning Forward, 2011). It focuses on activities designed to promote a growth-in-practice concept toward teacher learning, referred to as
“professional learning” (Lieberman & Miller, 2014, p. 9; see also Hirsh, 2009). A growth-in-practice approach to professional learning incorporates researched-based models that use student outcomes as the guiding force for classroom instruction and teacher learning. The focus is on deepening teachers’ understanding of the processes of teaching and learning and of the students they teach (Darling-Hammond & McLaughlin, 2011).

Professional development defined by the NSDC promotes a change from the former practices of staff development and “in-service” training (Darling-Hammond & McLaughlin, 2011, p.82) in which teachers have traditionally worked in isolation to improve their learning to benefit their students. The focus is now on teamwork through sharing knowledge and insight that facilitates a sense of responsibility for all students rather than just the students in one’s classroom.

Another change from former practices is the concept that professional development is sustained (Darling-Hammond & McLaughlin, 2011). In professional development, intensive ongoing learning occurs several times per week. This learning is set within teams and is supported by modeling, coaching, and collective problems solving of specific curricular problems. This support is provided through job-embedded services to assist in the transfer of new knowledge and skills to the classroom (Learning Forward, 2011). The learning is conducted through continuous cycles of improvement that analyze data, define a clear goal, carry out agreed upon activities to achieve goals, and complete the cycle by analyzing data to evaluate progress. Thus, professional development is grounded in inquiry, experimentation, and reflection requiring an active role on the part of the teachers.

Professional development is ultimately connected to school change (Darling-Hammond & McLaughlin, 2011). Professional learning is derived from the teachers’ work with their
students toward achieving academic outcomes established by the Common Core State Standards and by individual school districts or schools. Regular assessments on the effectiveness of a professional development program are necessary to monitor a program’s path toward the outcome goals (Learning Forward, 2011). Table 2.6 presents the distinguishing characteristics of professional development and staff development as identified by Anders et al. (2000), Lieberman and Miller (2000, 2007), Little (2006), McLaughlin and Talbert (1993), and Talbert (2010).

<table>
<thead>
<tr>
<th>Professional Development</th>
<th>Staff Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steady intellectual work that promotes meaningful engagement with ideas and with colleagues over time</td>
<td>Primarily technical, skills-based work that promotes the application of prescribed skills and occurs in fragmented pieces.</td>
</tr>
<tr>
<td>Involves teachers in knowledge creation through collaborative inquiry into practice</td>
<td>Involves teachers most often in knowledge consumption through the transfer of knowledge by way of direct instruction.</td>
</tr>
<tr>
<td>Relies on both inside teacher knowledge and outside expert knowledge</td>
<td>Relies on outside expert knowledge</td>
</tr>
<tr>
<td>Focuses on specific problems of practice and takes into account the experience and knowledge of teachers</td>
<td>Focuses on general problems and implementation of new problems and policies and tends toward a “one size fits all” approach</td>
</tr>
<tr>
<td>Assumes that teachers will actively engage in reflection, analysis, and critique</td>
<td>Assumes that teachers will passively comply with the delivery of content.</td>
</tr>
</tbody>
</table>

Researchers have refined professional development to specify the exact environment in which professional learning should take place, thus job-embedded professional development.
Therefore, professional development has moved the focus from an outsider determining teachers’
deficits to the teachers’ themselves determining the areas of their craft in need of improvement.

**Job-Embedded Professional Development**

JEPD has been more prominently featured in recent federal education regulations and has come into increasingly common use over the last decade (Croft, Coggshall, Dolan, Powers, & Killion, 2010). Its definition is comprised of multiple characteristics, many of which are related to the growth-in-practice model previously discussed. The fundamental factor of JEPD is that it is grounded in the day-to-day practices of teachers (Darling-Hammond & McLaughlin, 2011). JEPD is primarily school or classroom based and is a part of the teacher’s workday that impacts the immediate work of teaching students within the classroom. It is designed with the potential to have an impact on the development of all teachers through facilitation of collaborative conversations among teacher teams or throughout a school. Teachers draw from the professional knowledge of their colleagues (Wei et al., 2009). JEPD can occur in departments, across departments, by grade-level, or in vertical (e.g. across grade levels) teams of teachers. While some activities are conducted by the teacher alone, the results are discussed in a team environment for possible generalizations across other contexts within the school. As with professional development, JEPD also focuses on identifying and solving immediate problems of practice through a cycle of sustained, ongoing, intensive work supported in a collaborative environment that correlates with state standards for student achievement (Darling-Hammond & McLaughlin, 1995; Hawley & Valli, 1999; Hirsh, 2009; National Staff Development Council, 2010). This approach to professional development supports a whole-school change or
restructuring through taking into consideration the social, cultural, and organizational arrangements of schools and what they mean for teachers (Lieberman & Miller, 2014).

JEPD assumes many designs: action research, case discussions, coaching, critical friends groups, data teams, and examination of student work (Croft et al., 2010). Action research occurs when the teacher systematically investigates an aspect of his/her teaching by recording data and considering theories and drawing conclusions from research literature to inform future instructional decisions (Cochran-Smith & Lytle, 1990). Case discussions involve focusing on one individual (e.g. a teacher or student) with the intent to analyze and deconstruct actions looking for insight into exemplar practices or missed opportunities (Brown-Easton, 2008; Wei et al., 2009). Coaching involves an expert providing ongoing consistent follow-up of demonstrations, observations, and conversations with teachers as they implement new strategies and knowledge that focuses on the technical aspects of instruction (Rowley, 2005). Critical friends groups are an opportunity for teachers to gather and analyze each other’s work (e.g., student work, lesson planning, or assessment) or challenges they are facing in their craft. Data teams/assessment development focuses on teachers meeting to analyze student data gathered from standardized tests or teacher-created assessments to gain insight about student learning and to formulate refined approaches to enhance student achievement. The assessment tools may also undergo refinement in this setting. The JEPD format of examining student work enables teachers to develop a common understanding of good work, identify student misconceptions, and evaluate their teaching methods (Brown-Easton, 2008; Wei et al., 2009).

Additional JEPD designs include implementing individual professional growth, lesson studies, mentoring, portfolios, professional learning communities (PLCs), and study groups (Croft et al., 2010; see Table 2.7).
Table 2.7

Job-Embedded Professional Development Designs

<table>
<thead>
<tr>
<th>Action Research</th>
<th>Implementing Individual Professional Growth/Learning Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Discussions</td>
<td>Lesson Study</td>
</tr>
<tr>
<td>Coaching</td>
<td>Mentoring</td>
</tr>
<tr>
<td>Critical Friends Groups</td>
<td>Portfolios</td>
</tr>
<tr>
<td>Data Teams/Assessment Development</td>
<td>Professional Learning Communities (PLC)</td>
</tr>
<tr>
<td>Examining Student Work/Tuning Protocol</td>
<td>Study Groups</td>
</tr>
</tbody>
</table>

Implementing individual professional growth plans involves teachers developing their own professional growth plans alongside an instructional coach, master teacher, or the principal to identify the professional development opportunities they should engage in as well as monitoring their growth in designated areas (Brown-Easton, 2008; Wei et al., 2009). Lesson studies involve teachers preparing a lesson to demonstrate a specific teaching and learning goal while other teachers observe and document what they see followed by a meeting to discuss the strengths of the lessons and areas for improvement. Mentoring is implemented as part of the induction phase for new teachers; providing support in the many domains of teaching, it can also lead to peer coaching as the teachers gain experience. Portfolios involve teachers assembling lesson plans, student work, reflective writing, and other materials used within the classroom as a means to reflect on their teaching practices in light of established professional development standards. PLCs facilitate teacher collaboration to analyze their practice and discuss new strategies and skills, testing them within their classroom and reporting the results to each other. Examining student work enables teachers to develop a common understanding of good student work, identify common student misunderstandings, and evaluate their teaching methods when viewing student outcomes.
While many of the JEPD formats are successful, the study will focus more intently on the designs of coaching and professional learning communities (PLCs). Therefore, the following section provides a more in-depth look into the constructs of coaching and PLCs.

**Coaching**

Whether in the sports arena or an educational setting, coaching is an art that encourages, inspires, and challenges those under a coach’s direction. The art of coaching within itself is subdivided based on unique goals and methodological approaches (Knight, 2009). Those coaching entities most prevalent in education are literacy coaching, cognitive coaching, and instructional coaching. Coaching is a way of encouraging an individual to challenge his/her way of thinking about him/herself to shape his/her future and the future of the school. A coach leads an individual to grow and achieve confidence and competence in his/her professional abilities. This is achieved through skillfully asked questions and challenges to standing assumptions. Coaching is not telling an individual what to do or how to do it. Great coaches lead an individual to answer those questions for him/herself. Research has shown coaching to be an effective means of helping teachers incorporate new learning into professional practices. In their review of 200 articles, presentations, and books, Cornett and Knight (2008) found that when coaching was incorporated into professional development, approximately 95% of the teachers implemented the new strategies in their classrooms versus the 15% following a one-day workshop. Knight (2009, pp. 18-19) identified eight common characteristics among all coaching practices (see Table 2.8).
Table 2.8
Common Characteristics in Educational Coaching Practices

| • Focused on professional practice | • Dialogical |
| • Job-embedded | • Non-evaluative |
| • Intensive and ongoing | • Confidential |
| • Grounded in partnership | • Facilitated through respectful communications |

Professional Learning Communities

Professional learning communities (PLCs) provide arenas for professional learning and have become one of the more prominent approaches of facilitating educator collaboration (Lieberman & Miller, 2008; Swan Dagen & Bean, 2014). PLCs are commonly used as forums for other JEPD designs. Lieberman and Miller define PLCs as “ongoing groups of teachers who meet regularly for the purpose of increasing their own learning and that of their students” (p. 2). PLCs are designed to be small intimate social arrangements that create strong bonds among the members (Lieberman & Miller, 2008). These ties are then used to strengthen capacities to talk honestly, inquire critically, develop deeper understanding of teaching and learning, share work publicly, and acknowledge mutual responsibility for student learning. Newmann and his associates (1997) identified five characteristics of PLCs: shared values and norms, focus on student learning and not teaching, opportunities for reflective dialogue, collaboration as the norm, and teaching made public among colleagues. It is the collaborative structure PLCs support that makes them viable for meeting the required criteria of JEPD described in current educational reform policies (see Table 2.9).
Thus far, a closer look into the definition of staff development, professional development, and job-embedded professional development has been presented. Staff development was the inaugural term used to describe teacher learning that incorporated a one-day workshop approach to address potential skill deficits. Professional development incorporates the use of a growth-in-progress model that encourages teachers to reflect on their students’ outcomes when considering professional development to address shortcomings in lesson planning, presentation, or knowledge base. JEPD refers to the model of professional development that incorporates teacher learning within classrooms and during teachers’ workdays. The study was designed to examine the effects of JEPD. Therefore, the next discussion will take a closer look at research that incorporated JEPD.

**Empirical Research on JEPD**

In the following sections, five research studies incorporating JEPD are analyzed through the lenses of research design, participants, and methods of data collection to evaluate the strengths and weaknesses for consideration in the study.
**Research design.** Zan and Donegan-Ritter’s (2014) study was selected because of its investigation of the JEPD model of instructional coaching and its focus on early elementary teachers and students. Peer coaching was utilized on a monthly basis between the lead teacher and his/her assistant teacher. Written guides for facilitating the coaching session were provided by the intervention implemented within the study. Zan and Donegan-Ritter used a quantitative approach to examine the impact of a year-long professional development model comprised of teacher self-reflection, coaching, and mentoring using a pre-determined classroom assessment scoring system. Through the use of simple descriptive statistics (e.g. mean and standard deviation) and inferential statistics (e.g. probability and paired t-test) the study found a statistically significant change in four of the ten domains under observation as a result of a JEPD approach involving instructional coaching as one of the variables.

Reinke, Stormont, Herman, and Newcomer’s (2014) study was also selected because of its investigation of coaching to support teacher implementation of classroom-based interventions. As a part of the intervention program, teachers were taught through multiple trainings and then supported in using the key concepts with ongoing one-on-one coaching sessions in their classrooms. Through the use of a series of one-way and two-way repeated ANCOVA measures, the quantitative study compared the rate of intervention implementation to the amount of overall coaching support.

Brown, Rodecker, and Valdez’s (2011) study was selected for its examination of the implementation of a vertical team approach to making student data-driven decisions for
curricular changes. A more detailed explanation of the components of a vertical team is discussed in the participant section of this review. In conjunction with The California Partnership for Achieving Student Success (Cal-PASS), the South Bay Science Council assembled as a vertical PLC to facilitate the mission of Cal-PASS for the Sweetwater Union High School District. The PLC focused on the current protocol used to predict student success in high school science courses using middle school science, algebra, and English grade point averages. The South Bay Science Council used a quantitative approach of simple descriptive statistics (e.g., mean scores). They gathered data from the Cal-PASS database of seventh and eighth grade point averages in middle school biology and chemistry classes and compared them to the state standardized test scores in algebra and English for students in 10th grade using the same sub-group of students (e.g., seventh and eighth grade biology and chemistry students). Analysis of scores revealed the need for a new form of biology class. After implementation of a new biology class, the PLC used mean scores on an Academic Performance Index based on the state standardized test scores to measure outcome of implementation. Specific statistical analysis was not explained in detail. The write up indicated that the PLC requested answers to over 16 research questions from its Research Department. The Research Department analyzed performance data for the elementary, middle school, high school, and college levels as a predictor of future student performance in the subsequent level.

Since the study will use a mixed-method research design, two additional studies were identified based on this design while incorporating a model of JEPD. Mesler Parise and Spillane (2010) used a mixed-method design approach in their study of how formal and on-the-job learning opportunities predict change in elementary school teachers’ practice. While the study indicated that it proposed a mixed-method approach for collecting and analyzing data, a
careful review found only quantitative descriptive statistics of means and range used to organize and present data.

Sigurdardottir (2010) used a two-phased mixed method approach to studying schools as professional learning communities. The quantitative data were coded, and the following tests were used: the Kolmogorov-Smirnov test for distribution, independent t-test to compare means, and Pearson product moment correlation for the relationship of the total mean scores with the level of effectiveness. Sigurdardottir’s (2010) qualitative data (e.g. observation and interview data) were analyzed in two different ways: first, according to the nine already defined variables within the study and second without them, looking for new categories to evolve and analyze.

A review of the gathered research highlighted important design considerations for carrying out the study (see Table 2.10). These considerations will be discussed in further detail at the conclusion of the empirical research on JEPD. The discussion will now take a closer look at the participants of each respective study.
### Table 2.10

Summary of Analyzed Research Articles for Research Design

<table>
<thead>
<tr>
<th>Article</th>
<th>Design</th>
<th>Evidence of Research Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zan &amp; Donegan-Ritter,</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statics</td>
</tr>
<tr>
<td>(2014)</td>
<td></td>
<td>- Inferential Statistics</td>
</tr>
<tr>
<td>Reinke et al., (2014)</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statistics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- ANCOVA measures</td>
</tr>
<tr>
<td>Brown, et al. (2011)</td>
<td>Quantitative</td>
<td>- Mean scores of 7\textsuperscript{th} and 8\textsuperscript{th} grade students grade point averages in Biology and Chemistry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Mean scores on state standardized testing of 9\textsuperscript{th} grade Algebra and English scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Mean scores</td>
</tr>
<tr>
<td>Mesler Parise &amp; Spillane,</td>
<td>Quantitative</td>
<td>- Simple Descriptive Statics</td>
</tr>
<tr>
<td>(2010)</td>
<td></td>
<td>- Correlation and Regression</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- independent ( t )-test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Pearson’s correlation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Open and closed coding of observations and interviews.</td>
</tr>
</tbody>
</table>

**Participants.** This discussion will consider the number and level of teachers and students involved in each study as well as the sampling techniques used to select participants (see Table 2.11).
Zan and Donegan-Ritter (2014) used a purposeful sampling technique to initially identify their study’s participants. The study’s focus was on Head Start Classrooms (pre-school age children); therefore, the researchers contacted four Head Start grantees in Iowa, two urban and two rural. From there, the Head Start directors selected four to six education supervisors to be trained as mentors for the eight-month program of Classroom Assessment Scoring System (CLASS) – based on professional development. A total of 60 teachers (lead and assistant) from 30 classroom teams participated in the study. The researchers randomly assigned the teachers of three of the grantee programs to an intervention or comparison group. For logistic reasons, the teachers of the fourth grantee were only assigned to the intervention group. In total, 38 teachers

<table>
<thead>
<tr>
<th>Research</th>
<th>Participants</th>
</tr>
</thead>
</table>
| Zan & Donegan-Ritter, (2014) | 19 Mentors  
60 Teachers  
- 38 teachers in intervention groups  
- 22 teachers in comparison group  
- Purposeful Sampling |
| Reinke et al., (2014) | 2 Program Coaches  
52 Elementary Teachers  
- 15 Kindergarten  
- 15 First Grade  
- 10 Second Grade  
- 13 Third Grade  
- Convenience Sampling |
| Brown et al., (2011) | Science professional including elementary school through university teachers and professors. |
- 2005: 714  
- 2007: 704  
- Purposeful Sampling |
| Sigurdardottir, (2010) | 94 professional staff members  
- Purposeful Sampling |
were assigned the intervention group and 22 teachers to the comparison group. The average years of teaching experience of all participants ranged from 8.6 years to 15 years.

Reinke et al. (2014) used convenience sampling as the method for selecting participants. This study was conducted in the context of a larger study that did not have the primary focus of evaluating the coaching model. Two intervention-certified leaders provided the workshop training and individual coaching sessions. The teachers who participated all taught at the elementary level and were broken down as follows: 15 kindergarten, 15 first grade, 10 second grade, and 13 third grade. A total of 52 elementary teachers participated in Reinke et al.’s (2014) study.

Brown et al. (2011) did not give any indication about how the teaching professionals were selected to participate in the South Bay Science Council. It is also unclear as to the number of individuals on the PLC and their specific professional teaching credentials. What is known is that the South Bay Science Council is a vertical team of science professionals including elementary school through university teachers and professors operating under the umbrella of the California Partnership for Achieving Student Success (Cal-PASS).

Mesler Parise and Spillane (2010) used purposeful sampling for their study, as data came from evaluation of a leadership professional development program in a mid-sized urban school district in the southeastern United States. The sample for their study was limited to self-contained kindergarten through fifth-grade classroom teachers responsible for both math and ELA instruction. The study occurred over a two-school year timeline, producing 714 participants at the study’s onset and 704 participants at the study’s conclusion.

Sigurdardottir (2010) used purposeful sampling in the selection of two of the 19 schools in Reykjavik, Iceland, that demonstrated different levels of effectiveness in predicting the
schools’ academic outcomes in grade 10 based on outcomes in grade 4 and parents’ level of education. She used multiple regression statistics to determine the level of effectiveness for each of the 19 schools. There were 94 teachers between the two chosen schools, with each of these schools housing students ages 6-16-year old.

These studies incorporated teacher participants from the earliest of grades (e.g. preschool children at Head Start) to the highest educational degree (e.g. The South Bay Science Council). Implications for information collected about the study participants will be discussed in further detail at the conclusion of empirical research on JEPD.

Methods of data collection. The following discussion focuses on the different strategies used to collect data for analysis in the respective studies (see Table 2.12).

Zan and Donegan-Ritter (2014) used monthly video-based self-reflection recordings as the primary source of measurement for this study. The teachers relied on written guidelines to facilitate their reflective sessions. Upon completion of the monthly recording, graduate students blind to the study and trained for reliability coded the videos according to the CLASS dimensions. A second coder independently coded a random selection of 10% of the DVDs, with an overall inter-rater reliability of 85.1%

Direct observation of teacher implementation of the classroom management program was the source of data collection in Reinke et al.’s (2014) study. Observations were coded using a handheld computer to gather real-time data by means of the Brief Classroom Interaction Observation Revised observation code. The observer recorded the frequency of the teachers’ use of proactive classroom management strategies, including praise statements, pre-corrections, and reactive strategies.
In the Brown et al. (2011) study, the PLC utilized the Cal-PASS data bank to retrieve student grade point averages and average scores for various state standardized testing. The averages of the requested student data were already computed through the Cal-PASS consortium. Therefore, the PLC visually compared grade point averages and student scores across various points of a student’s academic path beginning in middle school and concluding at the 10th year of high school.

Table 2.12
Overview of Methods of Data Collection

<table>
<thead>
<tr>
<th>Research</th>
<th>Methods of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinke et al., (2014)</td>
<td>- 4 direct observations of teacher implementation throughout the academic year.</td>
</tr>
<tr>
<td>Brown et al., (2011)</td>
<td>- Requested desired data from state database</td>
</tr>
<tr>
<td>Mesler Parise &amp; Spillane, (2010)</td>
<td>- Questionnaire with open and closed (Likert Scale) ended questions</td>
</tr>
</tbody>
</table>
| Sigurdardottir, (2010)       | - interviews\                      
\quad - questionnaire survey\                      
\quad - participant observations\                      
\quad - document analysis                                   |

An 18-page questionnaire with open- and closed-ended questions drove the data collection method for Mesler Parise and Spillane (2010). The questionnaire focused on 10 different sub-categories: change in math teaching practice and change in ELA teaching practice, math professional development and ELA professional development, math and English courses, outside network participation, collaborative discussion, peer observation and feedback, math
advice seeking and ELA advice seeking, professional learning community, principal develop
goals, and teacher efficacy. Each closed-ended question had its own Likert-type scale ranging
from four to seven points. The two-opened ended questions provided teachers with the
opportunity to share from whom they seek advice on math or ELA and their individual teacher
characteristics (e.g., numbers of years as a teacher, gender, race, and the teacher’s class size).

Since Sigurdardottir’s (2010) study was a mixed-method design, she incorporated
quantitative and qualitative methods of data collection. To meet her quantitative needs,
Sigurdardottir used a combination of questionnaires and document analysis to configure the
effectiveness level of the three potential participant schools. Also in this first phase of
establishing school effectiveness levels, Sigurdardottir used qualitative interviews. Once the two
participating schools were selected, questionnaires, interviews, and observations served as the
tools for collecting quantitative and qualitative data in phase two. Incorporating multiple
methods to support the strength of interpretations and conclusions supports the act of
triangulation which checks for consistency of evidence across all sources of data (Mertens,
2015).

Conclusion

This chapter presented a review of literature as it relates to the study. The chapter began
by taking a look at social cognitive theory and sociocultural theory, which will serve as the
theoretical framework. The social cognitive theory lays the foundation for the construct of
collective efficacy, which serves as a variable for this study. Collective efficacy was explored
from its evolution from self-efficacy to the application lenses of psychology and education. The
sources of efficacy were identified and explained as they play a pertinent role within the
professional development model chosen for this study. A close look was taken at current empirical research on collective efficacy, which led to one significant supporting principle of this study: collective teacher efficacy is in its infancy stage in educational research.

The sociocultural theory introduced the importance of five principles that support progress toward sustained school improvement efforts. Those principles are entrenched in the composition of job-embedded professional development, the second variable of interest in this study. The construct of professional development for teachers is examined at great length beginning with its earliest forms known as staff development and leading to present day recommendations of job-embedded professional development. Job-embedded professional development takes many forms, although this study is limited to that of coaching and learning communities. Current research on job-embedded professional development is discussed and used to develop research methodology approaches for this study. Those methodological components are discussed in Chapter 3.
CHAPTER 3
METHODOLOGY

The purpose of this study was to examine the influence of a job-embedded professional development model on elementary teachers and their collective efficacy beliefs. This chapter presents the research questions, research design, participants, methods of data collection, and process of data analysis.

Research Questions

The following questions guided the research:

1. Does job-embedded professional development influence the collective efficacy beliefs of elementary teachers? If so, how?

2. What organizational components support or inhibit the development of collective efficacy beliefs of elementary teachers?

3. What role, if any, do the four primary sources of self-efficacy play when using a job-embedded professional development approach to develop collective efficacy beliefs of elementary teachers?

Research Design

A mixed method design approach was used to answer the research questions for this study. In using this type of design, the researcher “gathers both quantitative and qualitative data,
integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems” (Creswell, 2015, p. 2). In the first step, the quantitative data used a non-experimental design (i.e., survey) to explore the impression job-embedded professional development had on the level of collective teacher efficacy of elementary teachers. In the second, qualitative data were collected as a follow-up to the quantitative results for further explanation of the quantitative findings.

For this study, teachers participated in a job-embedded professional development JEPD model designed by the researcher. Three literacy teams were created that focused on long-term literacy goals, current literacy curriculum and resources, and celebrating a passion for literacy as a learning community. The overarching literacy goals for the JEPD sessions were determined by the school’s building leadership team as recommended by the researcher. Volunteers were sought out by the researcher to chair/co-chair each of the committees acting as facilitators during the three JEPD sessions. When the chairs and co-chairs met to reflect on past JEPD sessions, the researcher served in a coaching role providing insight on direction for the next session. During the sessions, the researcher acted as a chair of one of the literacy teams as well as a participant.

Past research conducted on collective teacher efficacy beliefs had taken a quantitative approach (Goddard 2001, 2002; Goddard et al., 2007, Goddard et al., 2000, 2004; Goddard & Skria, 2006). However, Goddard et al. (2004) identified the need to consider the perceptions of how group capability might be changed to strengthen organizational culture. Therefore, a mixed-method approach to studying collective teacher efficacy provided the opportunity to investigate this topic from a needed design perspective.
The school in which this study took place was part of a school district located in a Midwest rural town with an estimated population of 11,129 (United States Census Bureau, 2015). In 2014-2015, the K-8 district educated 4,167 students in seven buildings: one junior high (7-8) school, one intermediate (5-6) school, four elementary schools (K-4), and one primary center (Pre-Kindergarten and Developmental Kindergarten) (Illinois State Report Card, 2015).

In the early 1990s, the town was known as a small rural community with an estimated population of 2,619 (United States Census Bureau, 2015). By 2003, the town had grown to a population of 4,756, but from 2003 to 2006, the town experienced a rapid pace of property development, doubling the population to 9,599 (United States Census Bureau, 2015). In 2010 at a population of 10,950, the town began leveling off in its growth development due to the existing state of the economy (see Figure 3.1). Using the current growth rate estimated by the US Census Department (+0.61%/year), in 2017 the estimated population of the town would be 11,401, which was a small increase of 451 individuals over a seven-year period. The town’s easy interstate access to/from a major Midwest metropolitan hub, its reasonable median home/land value, and its well-established and high performing school district were considered as reasons for the epidemic rise in population. See Table 1 for a summary of the growth in the community.
Many accommodations and adaptations were made to the community to contend with what the state government identified as fast-growing schools. That is, enrollment in school districts with more than 10,000 students had to increase by more than 1.5 percent during the past two academic years and by more than 7.5 percent for districts with an enrollment of less than
10,000 (Illinois General Assembly, 2016). Over the course of eight years, the school district built, added onto, and reclaimed a total of six school buildings, averaging a new building every two years. With new buildings came more staff. The district hired on average 55 new teachers a year for four years to staff buildings throughout the entire district. Teacher teams from established schools were divided and sent to the new buildings, ensuring that experienced professionals were there to lead the new staff in achieving the current district goals. With a new building opening every two years, teacher teams were consistently changing and having experienced teachers in the newer buildings became more difficult as a result of the rapid rate of growth.

The school district was focused on keeping up with the growth and maintaining the current academic standards. Minimal attention was given to team building or the school environment in light of the transient environment many staff members were experiencing. The school district, however, was able to maintain its high academic rigor as validated by receiving a state-recognized award for academic achievement seven years running.

Participants

In this study, I collected quantitative and qualitative data from a group of participants made up of K-4 classroom instructors, special education instructors, and academic/behavioral support staff. A convenience sampling approach was used to identify study participants, as the researcher used her place of employment as the research site. While recruiting participants within one’s school district has its limitations, this Midwest rural district was a prime candidate for this research study. From 2000-2010, this community experienced a rapid increase in population (166%). As a result, district student enrollment increased from 1,206 to 3,918, a
225% increase. The growth occurred at such an extreme rate that the district’s staff tripled in size within a five-year period. Minimal time was devoted to team building due to the greater need for acclimating larger numbers of staff to district policies and curricular procedures.

Qualifications for participating in the study included any adult certified staff member who had direct contact with a K-4 student or student(s) in an academic or behavioral capacity during the school day. Participants were also required to work together in designated teams according to professional development interests during the three half day school improvement days.

The study was introduced to the staff during a half day school development forum. A PowerPoint presentation was shown that informed the staff about the topic of the study, qualifications for participating in the study, requirements for those who participated, and precautions to ensure confidentiality. Presentation handouts were provided so the staff could review the information and ask additional questions. Those who agreed to participate signed a letter of consent prior to beginning the study (Appendix A). Subsequently, each teacher was assigned a pseudonym.

In total, 31 elementary teachers agreed to participate in this study. Their areas of expertise included classroom instruction from kindergarten to fourth grade as well as special education, social work, and working with English language learners. Table 2 presents demographic information about each teacher who participated.
Table 3.2
Demographics of Study Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age</th>
<th>Ethnicity</th>
<th>Years of Teaching Experience</th>
<th>Highest Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron</td>
<td>M</td>
<td>26-40</td>
<td>Multiracial</td>
<td>11-15</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Bella</td>
<td>F</td>
<td>25 or Under</td>
<td>Caucasian/White</td>
<td>0-5</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Brianna</td>
<td>F</td>
<td>25 or Under</td>
<td>Caucasian/White</td>
<td>0-5</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Cadence</td>
<td>F</td>
<td>41-55</td>
<td>Hispanic</td>
<td>0-5</td>
<td>Bachelor’s Plus</td>
</tr>
<tr>
<td>Craig</td>
<td>M</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>0-5</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Darla</td>
<td>F</td>
<td>41-55</td>
<td>Caucasian/White</td>
<td>11-15</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Diana</td>
<td>F</td>
<td>25 or Under</td>
<td>Caucasian/White</td>
<td>0-5</td>
<td>Bachelor’s Plus</td>
</tr>
<tr>
<td>Felicia</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>11-15</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Heather</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>11-15</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Heidi</td>
<td>F</td>
<td>26-40</td>
<td>Multiracial</td>
<td>11-15</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Julie</td>
<td>F</td>
<td>56 or Older</td>
<td>Caucasian/White</td>
<td>21-25</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Kendall</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>11-15</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Kristen</td>
<td>F</td>
<td>25 or Under</td>
<td>Caucasian/White</td>
<td>0-5</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Laura</td>
<td>F</td>
<td>25 or Under</td>
<td>Caucasian/White</td>
<td>0-5</td>
<td>Bachelor’s Plus</td>
</tr>
<tr>
<td>Laurie</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>6-10</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Lindsey</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>6-10</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Lola</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>6-10</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Melanie</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>6-10</td>
<td>Master’s Plus</td>
</tr>
</tbody>
</table>
Table cont. from previous page

<table>
<thead>
<tr>
<th>Name</th>
<th>Gender</th>
<th>Age</th>
<th>Ethnicity</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morgan</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Paige</td>
<td>F</td>
<td>25 or Under</td>
<td>Caucasian/White</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Paula</td>
<td>F</td>
<td>56 or Older</td>
<td>Caucasian/White</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Regan</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Rose</td>
<td>F</td>
<td>41-55</td>
<td>Caucasian/White</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Sabrina</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Sadie</td>
<td>F</td>
<td>41-55</td>
<td>Caucasian/White</td>
<td>Bachelor’s Plus</td>
</tr>
<tr>
<td>Sally</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Savannah</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Degree</td>
</tr>
<tr>
<td>Silvia</td>
<td>F</td>
<td>41-55</td>
<td>Caucasian/White</td>
<td>Bachelor’s Degree</td>
</tr>
<tr>
<td>Shannon</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Sophia</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Plus</td>
</tr>
<tr>
<td>Suzy</td>
<td>F</td>
<td>26-40</td>
<td>Caucasian/White</td>
<td>Master’s Plus</td>
</tr>
</tbody>
</table>

Some areas of commonality emerged from the teachers who agreed to participate. The dominant gender for this group was female (94%), with the dominant ethnicity being Caucasian/White (90%). The median age range of the teachers was 26-40 years old. With regard to years of teaching experience, 32% of the participants had been teaching for 11-16 years, with 0-5 years of teaching experience second at 29%. Combining areas of academic attainment revealed 65% of the teachers had earned their master’s degree or beyond.
Assembly of Literacy Teams

At the beginning of the study, the researcher presented the teachers with a description of the three literacy teams. The idea of the three different literacy teams was constructed by the researcher for the purpose of this study. Teachers were asked to talk with their grade level colleagues or specialty teams to determine the literacy team they wanted to represent their grade or specialty area. The teachers then divided themselves into the three vertical K-4 literacy teams to address current ELA needs. Once the teams were established, the researcher asked for volunteers to serve as chairs/co-chairs for each of the literacy teams. These teacher leaders remained consistent throughout the study. After the first JEPD session, the teachers remained in the same literacy teams for the duration of the study. The first team, The Dream Team, focused on taking a closer look at the ELA curriculum across grade levels to identify instructional gaps occurring between the former state standards and the Common Core State Standards (CCSS). A second team, Literacy Gurus, focused on the ELA curriculum and the resources available to or needed for teachers to weave in elements of the CCSS. The third literacy team, Party Planners, focused on integrating a passion for literacy not only into the classrooms but also into the home environment by planning and carrying out whole school and family-literacy-day activities.

Data Collection

In this section, the data collection strategies are described. The pre- and post-study survey on collective teacher efficacy is presented first. Next, each instrument is explained, and a study timeline is presented. Finally, alignment of the research questions with the data collection instruments is provided.
Data Collection Instruments

Collective Teacher Efficacy Survey

The survey tool used to collect data on collective teacher efficacy is from Tschannen-Moran and Barr (2004) (Appendix B). Initially created and researched by Goddard et al. (2000) this 16-item Likert-type scale evolved from Gibson and Dembo’s (1984) original 30-item instrument for assessing teacher efficacy. What makes the Goddard et al. (2000) measurement different, besides the decreased number of items, is that it focuses on group-oriented items instead of individually-oriented items. Tschannen-Moran and Barr revised Goddard et al.’s collective teacher efficacy scale by using a factor analysis to reduce the number of questions to 12, thereby removing questions that incorporated environmental influences in measuring collective teacher efficacy. Tschannen-Moran and Barr named their tool the Collective Teacher Efficacy Belief Scale (CTEBS).

Tschannen-Moran and Barr (2004) evolved the CTEBS not only from Goddard et al. (2000) but also as an adaptation of the Teacher Sense of Efficacy Scale (TSES) measure developed by Tschannen-Moran and Woolfolk-Hoy (2001). In their 2004 study, Tschannen-Moran and Barr tested the 12-item CTEBS in 66 schools. In a factor analysis, the 12 items loaded on one factor, which resulted in loadings ranging from .79 to .58. In Tschannen-Moran and Barr’s (2004) study the CTEBS demonstrated a reliability of .97.

The survey was taken by the 31 teachers at the beginning of the current study to establish a baseline of their perceived level of collected teacher efficacy. Demographic-based questions were also included. At the conclusion of the study, the teachers took the same collective teacher
efficacy survey minus the demographic questions to determine if a change in perception had
occurred.

**Individual Reflection Journals**

Upon completion of each of the three job-embedded professional development (JEPD)
sessions, each teacher completed a personal reflection about the learning experience (Appendix C). The teachers were encouraged to reflect on the discussed ideas, main goals accomplished
during time together, next instructional steps, and strengths and weaknesses of the professional
development protocol. Some questions were taken from Bradley’s (2015) Reflection on
Learning Design Cycles, an approach for meaningful professional learning in which the personal
reflection of teachers is valued and incorporated. Bradley incorporated a reflection journal as
part of her Five-Part Plan, but the reflection journal questions used in the current study were not
all taken from Bradley’s. Individual reflection journals were sent out electronically through
Qualtrics immediately following each session. Follow-up contact was made one week following
the JEPD session via electronic mail through Qualtrics to those participants who had yet to turn
in a journal from the most recent session. A second follow-up electronic mail through Qualtrics
was sent to the remaining participants who had not completed their journal.

Table 3 is a breakdown of the number of participants who completed the three individual
reflection journals during the study.
### Table 3.3

<table>
<thead>
<tr>
<th>Individual Reflection Journals</th>
<th>Total Number of Participants</th>
<th>Journals Started</th>
<th>Journals Completed</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>October Journal</td>
<td>31</td>
<td>25</td>
<td>15</td>
<td>48%</td>
</tr>
<tr>
<td>January Journal</td>
<td>31</td>
<td>25</td>
<td>23</td>
<td>74%</td>
</tr>
<tr>
<td>March Journal</td>
<td>31</td>
<td>23</td>
<td>20</td>
<td>65%</td>
</tr>
</tbody>
</table>

A review of the completion rate for each journal identified October with a less than 50% response compared to subsequent months. On this particular school improvement date the district scheduled a professional development session that mandated attendance for some of the study’s participants. In the month following the October JEPD session, teachers were focused on planning and carrying out parent-teacher conferences as well as enjoying a five-day holiday weekend. These factors contributed to the lower completion rate for the October Individual Reflection Journal only.

#### Semi-Structured Interviews

Semi-structured interviews were the final means of data collection in this study. A semi-structured approach allows the researcher to respond to the situation at hand, revealing views of the respondent as well as new ideas on the topic the respondent may present (Merriam, 2009). One-on-one interviews were scheduled toward the conclusion of the study in April and May, allowing for proper adherence to the three-interview series as recommended by Seidman (2013). The list of questions or issues to be addressed during the interview was provided to the teachers.
so they could feel prepared and less apprehensive about the interview process (Appendix F). On average, the interviews lasted approximately 20 minutes. Interviews took place in the participants’ classrooms to ensure comfort and reduce any anxiety that might be present as a result of thoughts and opinions being recorded.

Of the 31 teacher participants, 15 agreed to participate in the interview process. The teachers who volunteered and were interviewed are identified in Table 3.4.

Table 3.4
Interview Participants

<table>
<thead>
<tr>
<th>Grade</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Laura, Lindsey, &amp; Morgan</td>
</tr>
<tr>
<td>1</td>
<td>Heather, Paula, &amp; Sophia</td>
</tr>
<tr>
<td>2</td>
<td>Diana, Heidi, &amp; Suzy</td>
</tr>
<tr>
<td>3</td>
<td>Bella, Craig, &amp; Paige</td>
</tr>
<tr>
<td>4</td>
<td>Kendall, Laurie, &amp; Regan</td>
</tr>
<tr>
<td>ESL</td>
<td>Rose</td>
</tr>
<tr>
<td>SE</td>
<td>Silvia</td>
</tr>
</tbody>
</table>

The sample of interview participants provided a balanced representation of the elementary teachers. All grade levels and areas of specialty had a voice discussing the JEPD sessions from their respective points of view.

Data Collection Timeline

Data collection for this study is shown in Table 3.5.
Table 3.5
Data Collection Timeline

<table>
<thead>
<tr>
<th>Month</th>
<th>Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>Collective Teacher Efficacy pre-survey, reflection journals</td>
</tr>
<tr>
<td>January</td>
<td>Reflection journals</td>
</tr>
<tr>
<td>March</td>
<td>Reflection journals</td>
</tr>
<tr>
<td>April</td>
<td>Collective Teacher Efficacy post-survey, interviews</td>
</tr>
<tr>
<td>May</td>
<td>Interviews</td>
</tr>
</tbody>
</table>

Alignment of Research Questions with Data Collection Instruments

Table 3.6 illustrates how the research questions of this study align with the chosen data collection strategies.

Table 3.6
Alignment of Research Questions with Data Collection Strategies

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Survey</th>
<th>Journals</th>
<th>Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does job-embedded professional development influence the collective efficacy beliefs of elementary teachers? If so, how?</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What organizational components support or inhibit the development of collective efficacy of elementary teachers?</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What role, if any, do the four primary sources of efficacy play when using a job-embedded professional development approach to develop collective efficacy of elementary teachers?</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Data Analysis

The following section provides a detailed description of each of the data analysis techniques used during this study.

Quantitative Data

The data collected from the Tschannen-Moran and Barr (2004) collective teacher efficacy survey were analyzed using scores taken at the beginning and at the conclusion of the study. Using descriptive statistics, such as a mean score and a standard deviation score, were determined for each data point. In conjunction with the descriptive statistics, the researcher calculated a paired \( t \) test to determine if a JEPD approach to professional development influenced collective teacher efficacy of elementary teachers.

Qualitative Data

Qualitative data were collected through the reflection journals and one-on-one interviews. The participants completed a reflection journal at the conclusion of each JEPD. Three sessions were anticipated. Information from the journals and interviews were initially categorized by the research question it addressed and further analyzed through multiple cycles of coding methods discussed later in this section.

To prepare the interview data for analysis, interviews were audio recorded and transcribed by the researcher. Mertens (2015) advises that the researcher should assume the responsibility of transcribing audio records. The process of transcription allows the researcher to interact with the data, thus creating an intimate and intensive understanding of information.
gained from this data collection method (Mertens, 2015). Information gathered from interviews also underwent data exploration through a coding process discussed next this this section.

Charmaz (2015) and Corbin and Strauss (2015) identify the next stage, data exploration, as initial or open coding. Coding is the link between collected data and the emergence of a theme to explain the data. The intent of initial coding, particularly for grounded theory studies, is “to remain open to all possible theoretical directions indicated by your readings of the data (Charmaz, 2015, p. 114). Codes were created by defining what was seen in the data, thus generating a category of information (Creswell, 2009). “Grounded theorists create codes by defining what we see in the data” (Charmaz, 2015, p. 114), thus in vivo coding was employed during the first cycle of analysis to capture words or short phrases from the actual language found in the qualitative data (Saldana, 2013).

Following the exploration stage was the reduction phase (Mertens, 2015). The data reduction phase is referred to as focused coding by Charmaz (2012) or second cycle coding by Saldana (2013). There are many second cycle coding methods that can be utilized. For this study, focused and axial coding were implemented during the second cycle. Focused coding explored the most frequent or significant codes to develop (Saldana, 2013) and advanced the theoretical direction of the work (Charmaz 2014). Axial coding was an extension of the focused coding. The objective was to purposefully reassemble the data deconstructed during the initial coding cycle (Saldana, 2013). The resulting product was the conceptual categories and sub-categories.
Validity and Credibility

Merriam (2009) states that “to have any effect on either the practice or the theory of a field, research studies must be rigorously conducted” (p. 210). To ensure the validity and reliability of this study, the researcher used the practices of member checking and triangulation.

Member checking can be accomplished formally or informally (Mertens, 2015). The researcher provided each teacher with an opportunity to review his/her comments before they were made part of the official record for the research (Mertens, 2015). The reflective journals and interviews went through a series of member checks. Upon receiving each participant’s reflective journal, the researcher met with him/her, summarized what had been documented, and asked if notes accurately reflected the person’s position. The same approach was taken for the interviews. Upon the conclusion of each interview, a summary was delivered, and each teacher was asked if the summary and notes accurately reflected the teacher’s position.

The researcher also utilized the credibility strategy of triangulation to check for consistency of evidence across sources of data (Mertens, 2015). Not relying on one method of data collection better ensured the validity and creditability of the data gathered. Surveys, reflection journals, and interviews were three methods of data collection established to implement the triangulation.

Summary

The methodology of the study was outlined in this chapter. This included a comprehensive explanation of the research design model and the data collection tools selected for desired data evidence. A general overview of the analysis techniques was presented along
with the study’s limitations. Further examination of data analysis and study results are presented in Chapter 4.
CHAPTER 4

FINDINGS

This chapter presents an analysis of the data collected during the study and is organized by the three research questions.

Research Question 1

Does job-embedded professional development influence the collective efficacy beliefs of elementary teachers? If so, how?

Quantitative Data

Teachers were given Tschannen-Moran and Barr’s (2004) quantitative CTEBS (Appendix B) prior to beginning the study and at the conclusion of the study. Teachers (N = 31) rated each of the 12 survey questions based on a 9-point Likert scale. An aggregated pre- and post- study CTE mean score for the 12 survey questions were calculated through SPSS (see Table 4.1). As defined by Tschannen-Moran and Barr (2004), an aggregated mean value for the 12 questions represents the group’s CTE level. This group had an aggregated CTE pre-study score of 6.77 out of 9 and a post-study score of 7.27 out of 9. Participants’ scores were not normally distributed, and therefore mean scale scores were normalized through SPSS. The normalized scores were used in calculating the t-statistic. (see Table 4.2).
Table 4.1
Pre- and Post- Collective Teacher Efficacy Belief Scale Aggregated Mean Scores (N = 31)

<table>
<thead>
<tr>
<th>CTEBS Survey Question</th>
<th>Actual Survey Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Study Mean</td>
</tr>
<tr>
<td>1. How much can teachers in your school do to produce meaningful student learning?</td>
<td>6.93</td>
</tr>
<tr>
<td>2. How much can your school do to get students to believe they can do well in school work?</td>
<td>7.13</td>
</tr>
<tr>
<td>3. To what extent can teachers in your school make expectations clear about appropriate student behavior?</td>
<td>7.27</td>
</tr>
<tr>
<td>4. To what extent can school personnel in your school establish rules and procedures that facilitate learning?</td>
<td>7.03</td>
</tr>
<tr>
<td>5. How much can teachers in your school do to help students master complex content?</td>
<td>6.67</td>
</tr>
<tr>
<td>6. How much can teachers in your school do to promote deep understanding of academic concepts?</td>
<td>6.57</td>
</tr>
<tr>
<td>7. How well can teachers in your school respond to defiant students?</td>
<td>5.80</td>
</tr>
<tr>
<td>8. How much can school personnel in your school do to control disruptive behavior?</td>
<td>5.90</td>
</tr>
<tr>
<td>9. How much can teachers in your school do to help students think critically?</td>
<td>6.77</td>
</tr>
<tr>
<td>10. How well can adults in your school get students to follow school rules?</td>
<td>6.67</td>
</tr>
<tr>
<td>11. How much can your school do to foster student creativity?</td>
<td>6.53</td>
</tr>
<tr>
<td>12. How much can your school do to help students feel safe while they are at school?</td>
<td>7.70</td>
</tr>
</tbody>
</table>

**Aggregated Collective Teacher Efficacy Mean Score** | **6.77** | **7.27**

Note: 1 = None at all; 3 = Very Likely; 5 = Some Degree; 7 = Quite A Bit; 9 = A Great Deal
Table 4.2
Pre- and Post- Collective Teacher Efficacy Belief Scale Normalized Aggregated Mean Scores

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-study CTEBS</td>
<td>31</td>
<td>4.08</td>
<td>8.75</td>
<td>6.7703</td>
<td>1.26819</td>
</tr>
<tr>
<td>Post-study CTEBS</td>
<td>31</td>
<td>5.00</td>
<td>9.00</td>
<td>7.2745</td>
<td>1.08096</td>
</tr>
<tr>
<td>Pre-study Normalized</td>
<td>31</td>
<td>3.24</td>
<td>6.94</td>
<td>5.3645</td>
<td>1.00016</td>
</tr>
<tr>
<td>Post-study Normalized</td>
<td>31</td>
<td>4.59</td>
<td>8.26</td>
<td>6.6048</td>
<td>1.01173</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A paired $t$ statistic was utilized to make inferences about the population means and mean differences identified in the pre-study and post-study CTEBS. Among the 12 Likert-type questions asked there was a statistically significant difference between the pre-study and post-study survey means, pre-study ($M = 5.36$, $SD = 1.00$) and post-study ($M = 6.60$, $SD = 1.01$), $t = 5.189$, $p < .05$. Cohen’s ($d$) effect size was calculated for this study to determine the significance of the treatment effect. With a calculation of $d = 1.23$, this suggests a large practical significance ($d > .08$) (see Table 4.3).
Table 4.3

Results from Paired t-Test

**Paired Samples Test**

<table>
<thead>
<tr>
<th>Pair</th>
<th>Paired Differences</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>Lower</th>
<th>Upper</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PreNorm - PostNorm</td>
<td>-1.24032</td>
<td>1.33074</td>
<td>.23901</td>
<td>-1.72844</td>
<td>-.75220</td>
<td>-5.189</td>
<td>30</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

The paired t test revealed a score determined by Cohen’s d to have a large effect size. Therefore, a JEPD model can influence the level of CTE in elementary teachers. The following qualitative data for this research question explored in what ways JEPD influenced CTE.

**Qualitative Data**

Data to answer the qualitative portion of Research Question 1 came from the Individual Reflection Journals completed at the conclusion of the October and March JEPD sessions (see Appendix C and E). In the journals, one question inquired into the teachers’ perception about the efforts put forth by the group: What is your perception that the efforts put forth by this group of individuals will have a positive effect on student achievement? Through data analysis the four sources of CTE were supported by the framework: mastery experience, vicarious experience, verbal persuasion, and affect states (see Table 4.4).
<table>
<thead>
<tr>
<th>Theme*</th>
<th>Subcategory</th>
<th>Definition</th>
<th># of Comments</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery Experience</td>
<td></td>
<td>“Acquiring the cognitive, behavioral, and self-regulatory tools for creating and executing an effective course of action to manage ever-changing life circumstances” (Bandura, 1986, p. 80).</td>
<td>15 Total Comments</td>
<td>Reflection Journal</td>
</tr>
<tr>
<td>Behavioral Tools</td>
<td></td>
<td>Actions that strengthen the level of mastery experience.</td>
<td>11</td>
<td>Reflection Journal</td>
</tr>
<tr>
<td>Cognitive Tools</td>
<td></td>
<td>Knowledge gained to manage an ever-changing classroom environment.</td>
<td>4</td>
<td>Reflection Journal</td>
</tr>
<tr>
<td>Vicarious Experience</td>
<td></td>
<td>“Seeing people similar to themselves succeed by perseverant effort raises observers’ beliefs that they, too, possess the capabilities to master comparable activities” (Bandura, 1995, p.3).</td>
<td>6 Total Comments</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td>Verbal Persuasion</td>
<td></td>
<td>The influence others have through language interactions supporting an individual’s capabilities for mastering a task (Bandura, 1997).</td>
<td>4 Total Comments</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td>Affect States</td>
<td></td>
<td>Feelings of excitement or anxiety associated with an individual’s or group’s perceptions about their capability or incompetence (Bandura, 1986).</td>
<td>8 Total Comments</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td></td>
<td>Emotional Connection to Learning</td>
<td>Feelings of motivation and enjoyment experienced by the teachers.</td>
<td>4</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td></td>
<td>Level of anxiety experienced</td>
<td>Emotional responses of teachers to JEPD experience.</td>
<td>4</td>
<td>Reflective Journal</td>
</tr>
</tbody>
</table>

*See Appendix G for the axial coding notes for October and March Individual Reflection Journal
Mastery Experience

Mastery experience is the most powerful source of efficacy (Bandura, 1986). It involves “acquiring the cognitive, behavioral, and self-regulatory tools for creating and executing an effective course of action to manage ever-changing life circumstances” (Bandura, 1986, p. 80). That is, when teams reach a set goal that requires sustained effort and contributes that accomplishment to exertions within their control, they have acquired mastery experience. The collective efficacy of the team increases, and the team members come to expect that effective performances can be repeated (Bandura, 1997; Donohoo, 2017). The October and March JEPD sessions revealed two subcategories of evidence related to the CTE source of mastery experience: behavioral tools and cognitive tools.

Behavioral tools. Behavioral tools identified actions that resulted from the JEPD session that strengthened the level of mastery experience. Two classifications emerged under behavioral tools: impact on instruction (n = 6) and impact on curriculum (n = 5). The instructional environment was influenced by the development of behavioral strategies that promoted actions towards more effective outcomes. For example, the Dream Team recognized a loss in valuable instructional time by having to reteach lessons incorporating various vocabulary terms and symbols for a previously learned concept. In support of this thought, Bella shared, “a cohesive school environment was formed that will decrease the loss of instructional time” (March Reflection Journal, Dream Team). Savannah added to Bella’s thoughts by indicating that the Literacy Gurus worked to “develop common close reading symbols for each grade, so that students will be more able to implement those strategies more effectively by having common instruction” (March Reflection Journal, Literacy Gurus). The Dream Team influenced the instructional environment through their work in creating a cohesive transition of skills from one grade level to the next. Lola expressed that the Dream Team assisted in providing a “clear idea
on a purpose for student achievement” through instructional practice (March Reflection Journal, Dream Team). Cadence extended Lola’s comment by indicating that this clearer purpose helped teachers “give kids strategies to use when practicing or implementing ideas on their own” (October Reflection Journal, The Party Planners). Actions achieved during the JEPD session facilitated changes in instructional practices within teachers’ classrooms.

Many teachers also reported changes in practices that promoted changes to the curriculum, the second classification of behavioral tools. For example, Laurie explained “We created resources that will help close the curriculum gap” (October Reflection Journal, Literacy Guru Team). A gap was identified through analysis of the district’s standardized beginning of the year assessment. Teachers recognized the benefit for students in utilizing the JEPD time to create these necessary curricular resources. For instance, Savannah stated, “This supplementing of our curriculum will benefit student achievement” (October Reflection Journal, Literacy Guru Team). Another behavioral change seen among the teachers occurred through the actions of The Dream Team. They identified that the vocabulary used during instruction was not consistent across the grade levels. This discrepancy resulted in loss of instruction time when having to help students connect new vocabulary to already learned skills. In support of this point, Lindsey shared, “We addressed weak areas in language curriculum by creating a common language and symbols to use during instruction” (October Reflection Journal, Dream Team). Language or more specifically instructional vocabulary discrepancies were noticed when analyzing the district’s literacy test scores. Teachers on the Dream Team identified critical common core vocabulary that was not being rigorously used in the classroom; however, these vocabulary words were consistently used on district testing based off of the Common Core State Standards. The implication was that the students had been taught the concepts but could not recognize the
synonymous critical common core language impeding the students’ overall score. The symbols that the team agreed upon were those used when self-editing written work. It was learned that the upper grades used the symbols regularly while the lower grades were inconsistent. As a result, each grade level identified the symbols to introduce that year and those that should be mastered by the end of each grade. The team identified the need to better prepare students for future learning by having a more cohesive language on which to build. Lola described the team’s work in this way: “Creating a common vocabulary for students to be familiar with make them more prepared for future instruction” (October Reflection Journal, Dream Team). The interactive conversations prompted immediate changes. One immediate change was the instatement of a Daily Oral Language Review program from grades Kindergarten to Fourth. The Dream Team identified that the current curriculum did not bring much focus to language skills associated with building strong readers and writers. Therefore, Dream Team members who will serve on the future curriculum development team made note of their strong conviction to include a language or grammar component in the revised ELA course of study. For instance, Laurie explained this point by sharing the time spent during the JEPD sessions “allowed us to think of questions to ask that will benefit our future curriculum to promote deeper thinking on the part of students” (March Reflection Journal, Literacy Guru Team). The development of behavioral tools not only impacted the school’s curriculum but also the instructional environment.

Cognitive tools. The second sub-classification, cognitive tools, referred to the gathering of knowledge to assist in managing an ever-changing environment. Over the 5-month, time span of this study teachers testified to attaining knowledge that assisted them and their colleagues in reaching the target of improving literacy instruction. The teachers’ cognition increased during
the time spent examining literacy data and discussing results among their teams. This accumulation of knowledge magnified teachers’ abilities to address weaknesses in literacy content or instruction. For instance, Heidi commented, “We made good professional growth in some detailed areas of literacy instruction” (March Reflective Journal, Literacy Guru Team). Heidi and the Literacy Guru Team spent time identifying and understanding specific literacy skills in need of improvement. This knowledge was the foundation in which the Literacy Gurus evaluated curriculum and instructional practices suggesting necessary changes for improvement. As a result of this growth, teachers advanced their skills in the areas of instructional development and delivery. One way this was accomplished was by transitioning lesson objectives to focus on the updated student growth goals. Teachers transformed instruction by tailoring learning objectives to specific skill areas in need of attention as identified during the job-embedded professional development (JEPD) sessions. For example, the current literacy curricular resource used placed heavy emphasis on studying fictional text with minimal importance on nonfiction text analysis. According to district data, students needed improvement in their abilities to analyze nonfiction text. Therefore, the teachers reevaluated the resource objectives and omitted those fictional objectives that did not align with the CCSS. The literacy resources this district used had not been updated to reflect the new standards. Therefore, in place of the obsolete fiction objectives, the teachers substituted the Common Core nonfiction learning objectives to address the areas of concern noted in the district testing data. Another way the teachers grew cognitively was in their approach to incorporating student growth goals when planning instructional lessons. In support of this thought, Sally shared that the JEPD sessions “increased my knowledge in student growth goals and Webb’s Depth of Knowledge” (October Reflection Journal, Literacy Guru Team). Dr. Norman Webb, a senior research scientist for the Wisconsin
Center for Education Research (WCER), developed a language system used to describe the content complexity of learning expectation, instructional materials and assessment items (WCEPS, n.d.). Enhancing their knowledge and application of Webb’s Depth of Knowledge further assisted the teachers in developing lessons that incorporated different levels of learning complexity for the students to engage within and among themselves. The teachers believed this upgrade in learning complexity will close the achievement gap observed in the district literacy assessment data. Craig recognized Webb’s idea of student interaction by saying, “I learned strategies to help with student engagement” (March Reflection Journal, Literacy Guru Team). The cognitive growth these teachers alluded to is a necessary step towards obtaining mastery experience.

**Summary of Mastery Experience**

The CTE source of mastery experience focused on acquiring the cognitive and behavioral tools for creating and executing effective course of action to achieve a desired goal. Through the individual reflection journals, teachers shared how they grew in knowledge and actions which promoted changes in their current curriculum and instructional practices. By embracing such changes, teachers sustained their work over a 5-month period, and met their short-term goals bringing their overarching literacy goals of a cohesive transition of skill development across the grade levels, and instatement of ELA Common Core Standards closer to fulfillment.

**Vicarious Experience**

Vicarious experience is the second most influential source of efficacy and is exhibited through role modeling (Bandura, 1986). Bandura (1977) states that “seeing others perform
threatening activities without adverse consequences can create expectations in observers that they too will eventually succeed if they intensify and persist in their efforts” (p.81). There is no absolute measure of adequacy; therefore, individuals must appraise their capabilities in relation to the attainment of others through vicarious experiences (Bandura, 1986). In the school environment, CTE is enhanced when teachers observe teams embarking upon and succeeding with new challenges as a result of persistent, collaborative efforts. Role modeling opportunities present themselves through site visits, watching videos, networking, or book studies on the topic of role modeling (Donohoo, 2017). Teachers saw examples of collaboration and productivity from their peers during the JEPD sessions.

The teacher leaders also modeled an environment of collaborative work through initiating and supporting constructive conversations as they evolved during the JEPD sessions. As a result, participation among the teachers was elevated and sincere efforts were made to resolve literacy deficits, such as foundational skills in reading and writing and text analysis skills. Melanie made an observation about the discussions during one JEPD session by stating “everyone involved shared and participated” (October Reflective Journal, Literacy Party Planners). Conversations became more about what the community could do in response to deficits instead of sitting quietly waiting for a peer leader to provide the solution. Kendall cogently shared this point: “We worked together to generate ideas” (March Reflective Journal, Literacy Dream Team). Shannon extended Kendall’s thoughts by adding, “The discussions bounced around the room as problem solving tactics were utilized to address the current curriculum needs of our school” (March Reflective Journal, Literacy Dream Team). For example, the Dream Team problem solved how to incorporate literacy comprehension skills that supported a deeper level of comprehension allowing students to identify and discuss text complexity. Their suggestion was to reinstate a
previously used instructional approach to comprehension instruction. This previous approach focused on a designated skill for a month in whole group instruction. In the following month, a new strategy would be introduced through whole group lessons as the previous month’s strategy progressed to smaller guided reading groups. The Dream Team also revised the type of strategies and the sequence in which they were taught. Previously, all grade levels were expected to teach the same strategy during the same month. This was not beneficial for the students. The lower grades needed more time with basic comprehension strategies while the upper grades needed to skip these basic strategies and progress to more complex strategies in order to meet the desired outcomes for each grade level. The role modeling done by the respective JEPD leadership teams impressed on their colleagues the positive, productive outcomes that can be achieved during professional development when a collaborative approach is assumed.

Individuals within the group assumed various leadership roles that initiated discussions and movement towards the set session objective. Modeling how to provide efficient, effective leadership leading to the attainment of an objective demonstrated the definition of a vicarious experience. Sophia recognized this and shared, “We were all working toward helping students. We focused on ways to provide additional reading and writing opportunities to the children” (October Reflective Journal, Literacy Party Planners). Keeping the mindset focused on the objective facilitated a productive environment. Regan said it best when she affirmed how role modeling influenced their peers by reporting, “The leader got things done in an orderly manner” (October Reflective Journal, Party Planners). The peer leaders started the JEPD sessions on time, stayed on cue with the agenda, finished in the allotted time, and provided a product at the end of
each meeting. Team members walked away with a feeling of accomplishment and that their time was well spent as a result of their peer leadership.

The CTE source of vicarious experience was exhibited through the actions of the JEPD team leaders. Demonstrating strength and confidence to manage and lead others through curricular deficits was exactly the role-modeling type of activities the teachers in this study needed. Peer leaders led with focus, persistence, and a mind for collaboration. They made an impact on the beliefs of this educational community that a change is needed, and that together they were able to make and sustain the necessary changes to impact student achievement.

**Verbal Persuasion**

Verbal persuasion is the third source of efficacy (Bandura, 1986), and is demonstrated when a group is encouraged by a credible and trustworthy source to innovate and overcome challenges (Donohoo, 2017). The more authentic the source of information, the more likely the efficacy expectation is to change (Bandura, 1977). Goddard et al. (2000) noted that the more cohesive the faculty, the more likely they are to be persuaded by rigorous arguments. Verbal persuasion was present in the JEPD sessions; however, it was not documented as vigorously as the previous two sources by the participants.

A common theme among those teachers who comments were coded under the umbrella of verbal persuasion entailed meaningful discussions. The sociocultural theory supports the idea that meaningful learning occurs when teachers can engage in dialogue that addresses their own situated problems of practice (Raphael, et. al, 2014). CTE was enhanced by the impact these discussions had on the teachers in relation to their current literacy practices. Felicia observed that as a result of just one JEPD session: “This group is highly motivated to provide the best
instruction for the students. We shared better resources to incorporate in the classroom” (October Reflective Journal, Literacy Gurus Team). Through the verbal interactions of some, others came forward sharing ideas and materials resulting in a list of effective resources the teachers could refer to when planning future instructional lessons. The group discussions not only stimulated a collection of resources but also rejuvenated the mindset of teachers regarding literacy instruction. Heather expressed this rebirth by sharing that her “group promoted motivation and excitement about learning” (October Reflective Journal, Literacy Party Planners). Observations were made of the groups coming together through serious conversations about deficits and avenues to reduce such concerns. As Sally documented, “The staff is communicating more with each other about literacy based goals” (March Reflective Journal, Literacy Gurus Team). Observations made by the researcher revealed that teachers are recognizing that many of them have the same goals bringing them together to collaborate in efforts to achieve those goals. Some teachers experienced reassurance in hearing that others recognized and were concerned in some of the same academic areas. Sabrina added that the discussions were focusing on “curriculum, which directly relates to the students” and not administrative ideas that bear no immediate implication in the classroom (March Reflective Journal, Literacy Dream Team). In prior professional development sessions, the teachers were subject to learning what administration thought was important with little input from the teachers on their day-to-day curriculum or instructional needs. Top down initiatives require more convincing and those that are bottom up and being supported by high achieving colleagues. When hearing ideas and suggestions from colleagues who were in the same setting, peers significantly valued those ideas as opposed to those suggested from outside sources.
Verbal persuasion made a small appearance in the data provided by the teachers. One of the products, a list of resources given to the remaining staff, had viability because it was compiled by their colleagues—a group of individuals they held as highly credible and knowledgeable about the current setting in which they were teaching. Teachers were re-energized with motivation and excitement making tasks of planning new events less daunting. Finally, the teachers saw themselves coming together to agree upon and take action on steps to improve the state of their current literacy curriculum. The sources of all the meaningful discussions, or the verbal persuaders, were in fact authentic and creditable as they were peers who were situated in the same problems as those who participated in the JEPD sessions.

Affect States

Affect States is the fourth and final source of efficacy and includes feelings of excitement or anxiety associated with an individual’s or group’s perceptions about their capability or incompetence (Bandura, 1986). Tschannen-Moran and Barr (2004) refer to this as “the emotional tone of the organization” (p. 190). Bandura (1977) noted that “people rely partly on their state of physiological arousal in judging their anxiety and vulnerability to stress” (p. 198). In this study, teachers reported an affect states to various experiences connected to the JEPD sessions. In general, the teachers connected emotionally to the content of the JEPD sessions as well as to the structural components supported in a JEPD approach to professional learning.

The first subcategory, emotional connection to learning, recognized teachers’ feelings of motivation and enjoyment for themselves and their students when discussing potential literacy enhancement activities. This shared desire and emotional attachment led to an increase in confidence levels thus engaging the CTE source of affect states. Heather reported that her group,
“promoted motivation, excitement and a positive view about learning and education” (October Reflection Journal, Literacy Party Planners). The Party Planners brainstormed ideas on engaging students, teachers, and parents in literacy based activities. One activity that continued to grow in participation and anticipation were family reading nights. This team also developed literacy based theme days throughout the school year for the whole school to enjoy. When teachers were excited about the learning activity it was visible to the students, ultimately raising the level of student engagement and excitement for the activity as well. Sadie expressed her affect states in this way: “I am looking forward to participating in fun activities with my students that focus on reading strategies” (October Reflection Journal, Literacy Party Planners). Bringing fun and engaging activities not only to the classroom but to the home can positively influence student interest resulting in better classroom performance (Donohoo, 2017). In support of this point, Rose shared, “We planned activities that will get the students and their families motivated and excited about literacy” (October Reflection Journal, Literacy Party Planners). The family reading nights included raffles, book readings with activities for all ages, as well as a related craft to the theme of the night. During these JEPD sessions teachers expressed satisfaction and pleasure at being given the opportunity to plan inspirational activities. Since experiencing an emotional response to the work completed in the JEPD session, the CTE source of affect states increased the group’s belief that their actions would ultimately have a positive impact on student achievement.

The second subcategory, level of teacher anxiety, identified emotional responses of teachers when thinking or working towards a designated objective. Anxiety levels of the teachers were lowered when professional development sessions were productive and relevant to situated problems of practice. Shannon explained it like this, “Simply providing the time for
individuals to have productive, collaborative, conversations was a way to lower teachers’ stress in trying new things” (October Reflection Journal, Literacy Dream Team). In a typical day, teachers are so busy preparing for the day’s lessons, addressing academic or behavioral concerns of students or addressing parent questions. There is minimal time available for collaborative conversation among the grade level teachers let alone across grade levels to address curricular concerns. This lack of collaborative time can make a teacher feel overwhelmed in how to improve curriculum or instruction because they have to do so all on their own. The JEPD sessions allowed teachers to create products for immediate implementation, not additional prep time for instatement. Bella spoke of some of the products created throughout all three JEPD sessions: “We established a common language and marks to be used as well as began to explore a supplemental program that addresses the Next Generation Science Standards” (March Reflection Journal, Literacy Dream Team. Cadence valued the outcome of carrying out the planned activities. She reported that, “It was a great feeling that all the activities planned were carried out” (March Reflection Journal, Literacy Party Planners). At times teachers were asked to come up with ideas or activities to improve student achievement, but the gap remained between planning and implementing due to lack of time or administrative support. However establishing blocks of time, like the JEPD sessions, to plan and implement activities positively influenced the affect states of the group actually raising the levels of CTE.

This study created experiences that positively influenced the CTE source of affect states. Teachers were enthusiastic about their learning and their motivation carried through onto their lessons. In effect their students became enthusiastic about learning. Teacher’s level of anxiety were also lowered by providing time outside of the daily classroom responsibilities to create new and engaging activities for the students. Understanding the value of capitalizing on the emotional
connection teachers have with their students and their craft fostered an environment that encompassed the CTE source of affect states.

**Summary of Research Question 1**

JEPD had a significant influence in the collective efficacy beliefs of elementary teachers as determined statistically by a paired *t*-test. In the data provided by the individual reflection journals, an introduction was presented as to how a JEPD approach influenced the collective efficacy beliefs of this group of elementary teachers. By qualitatively capturing characteristics of each of the four sources of efficacy -- mastery experience, vicarious experience, verbal persuasions, and affect states -- further understanding is warranted and explored in the following research questions.

**Research Question 2**

What organizational components support or inhibit the development of collective efficacy beliefs of elementary teachers?

Interviews were conducted at the conclusion of the study to gather data to answer this research question. Seventeen teachers were asked “What organizational components support or inhibit the development of collective efficacy of elementary teachers?” Three major themes emerged from the interview data: Process, Leadership, and Participants (see Appendix H). Table 4.5 provides an overview of the major themes, their subcategories, and a tally of how many comments were categorized under each. It is important to note that the subcategories identified in Table 8 are also key constructs of a JEPD approach to professional learning.
Table 4.5
Themes for Research Question 2

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subcategory</th>
<th>Definition</th>
<th># of Comments</th>
<th>Data Source</th>
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<tr>
<td><strong>Process</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agenda</td>
<td></td>
<td>Elements associated with carrying out the JEPD sessions.</td>
<td>28 Total Comments</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
<td>Statements of intended JEPD session outcomes or goals.</td>
<td>3</td>
<td>Interview</td>
</tr>
<tr>
<td>Discussions</td>
<td></td>
<td>Verbal interactions between teachers or groups of teachers.</td>
<td>2</td>
<td>Interview</td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td>A pre-determined gathering established for the purpose of meaningful conversations.</td>
<td>2</td>
<td>Interview</td>
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<tr>
<td>Suggestions Made by the Teachers about the Process</td>
<td></td>
<td>Ideas provided by the teachers to improve the process of the JEPD sessions.</td>
<td>13</td>
<td>Interview</td>
</tr>
<tr>
<td><strong>Leadership</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chairs/Co-Chairs</td>
<td></td>
<td>Teacher(s) who led one of the three literacy teams.</td>
<td>6</td>
<td>Interview</td>
</tr>
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<td>Suggestions Made by the Teachers about Leadership</td>
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<td>Ideas provided by teachers to improve the leadership component of the JEPD sessions.</td>
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<td>Interview</td>
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<tr>
<td><strong>Participants</strong></td>
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<td></td>
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<tr>
<td>Organization Into Teams</td>
<td></td>
<td>The process in which teachers were divided among one of three literacy teams.</td>
<td>4</td>
<td>Interview</td>
</tr>
<tr>
<td>Ineffective Practices of Participants</td>
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<td>Practices that occurred during JEPD sessions by teachers seen as counter productive</td>
<td>3</td>
<td>Interview</td>
</tr>
<tr>
<td>Suggestions Made by the Teachers about Participation</td>
<td></td>
<td>Ideas provided by teachers to enhance their participation in the JEPD sessions.</td>
<td>1</td>
<td>Interview</td>
</tr>
</tbody>
</table>
Process

The first major theme, Process, encompassed the elements associated with carrying out the JEPD sessions. Each of the six subcategories are described next and substantiated by qualitative comments shared by the teachers: agendas, objectives, discussions, time, ineffective practices and suggestions made by the teachers about the process.

Agendas

Agendas were utilized to clearly communicate the objectives of the JEPD sessions. The responsibility of setting each agenda fell to the teachers who volunteered at the beginning of the study to serve as literacy team chairs and co-chairs. These leaders remained consistent throughout the study. The teams were provided with the session’s agenda a week before the meeting date, offering the teachers the topic(s) of discussion, the meeting place, and needed time to gather materials to support the work to be achieved.

Eight comments made by teachers indicated that agendas assisted in the effectiveness of the JEPD sessions. Many teachers reported the benefits of having an agenda for each session. For instance, Kendall stated, “I like how there was an agenda set” (Interview, Dream Team). Laura went further in describing her feelings in this way: “Having an agenda ahead of time and knowing the time we were meeting made the JEPD sessions effective” (Interview, Party Planners). Paula added yet another perspective about the benefits of having meeting agendas: “I liked having an agenda to organize what we needed to do and what we needed to bring with us to get something done correctly” (Interview, Literacy Gurus). Teachers appreciated the information that was provided through the JEPD agendas.
As for the method in developing each agenda, Darla, one of the literacy team chairs for the Party Planners, reported, “I liked that we -- all of the PLC leaders -- met before our meetings. I think that helped to figure out what my team should focus on next” (Interview, Party Planners). The literacy team chairs chose to meet before each session, not only to collaborate on the objectives but also to assure there was no overlap in their work. They also monitored the work completed so that future objectives were a continuation of past progress. Teachers appreciated that their time was valued and that meeting agendas helped to organize and structure their time in such a way that assured productivity. In support of this point, Lindsey spoke about how the agenda helped the group “stay on task” (Interview, Dream Team), and Morgan added “focused” (Interview, Dream Team). This was counter to past professional development opportunities where discussions were easily side-tracked making teacher work time less productive and perceived as being a negative experience. The teachers expressed that agendas facilitated the process of a JEPD session by assisting in a structural and managerial capacity.

Objectives

The second subcategory, Objectives, was defined as statements of intended JEPD session outcomes or goals. The school’s building leadership team, composed of teachers, established the overarching goal of the JEPD study. The goal -- to improve literacy scores of students -- was driven by data collected on the students during the district’s mandatory assessment administered three times a year. From there, each of the three literacy teams took that goal and set objectives related to their area of focus. Laurie concluded that, “What made this JEPD effective was having a clear objective” (Interview, Literacy Gurus). Heidi extended Laurie’s thoughts by saying, “Having a common objective was huge. It gave us direction and we understood the expectations
encouraging us to work together” (Interview, Literacy Gurus). In past professional development sessions, teachers commented that objectives were not always teacher driven or even followed. Sophie spoke of the positive response from teachers when the objectives helped them “tackle the goal piece by piece” (Interview, Party Planners). When deliberating over an identified problem of practice teachers noted how easy it was to lose focus when discussing potential causes. Sophia explained this best by saying: “Having an objective each time that we met kept us from getting out of control in what we were talking about and the different tasks we were assigning” (Interview, Party Planners). These teachers stayed focused on their work when given a clear objective, whether it was the common overarching goal or more specific, immediate tasks to achieve within each JEPD session. Therefore, objectives made the process of a JEPD session more efficient.

Discussions

Discussions, the third subcategory, referred to verbal interactions between teachers or groups of teachers. Three teachers remarked about how knowledge was shared among staff when engaged in collaborative conversations with peers. For example, Shannon explained, “We respected each other’s knowledge and what we or they could contribute to the conversation” (Interview, Dream Team). Respect was evident in the discussions as teachers attentively listened to each other and expanded on ideas that were up for discussion. Silvia’s thoughts extended what Shannon had said when she shared, “It was great to just have the opportunity for open, honest conversation about our needs” (Interview, Literacy Gurus). The chairs and co-chairs of each literacy team encouraged interactive conversations by not moving onto the new objective until all thoughts or comments were heard. Paige concluded, “I liked having the time to be able
to discuss with others, especially grade levels close to us” (Interview, Dream Team). JEPD sessions thrived when discussions related to current problems of practice and they occurred in a safe and respectful environment.

**Time**

Time, the fourth subcategory, referred to a pre-determined gathering established for the purpose of meaningful conversations. Teachers have minimal time during the regular school day for extended collaborative conversations. That is because the school day is focused on carrying out instruction, managing students, and maintaining appropriate communication with students’ parents. The JEPD model was purposely structured to carve out blocks of time during which deep conversations could occur and real change could begin in the classroom. As Silvia shared, “Just having the time during the five-hour school day to meet was beneficial” (Interview, Literacy Gurus). Teachers looked forward to this time of collaboration and were able to plan ahead for items of discussion. Lindsey explained this point best by sharing, “I think the allowing of at least an hour, if we could have more that would be great, but at least having a big chunk of time to sit down was beneficial” (Interview, Dream Team). The types of collaborative conversations the teachers desired to make changes in the curriculum are not ones that can occur in the teachers’ lounge or while passing in the hallway. They required structured periods of time when all members can focus on the topic of discussion, without having thoughts about getting copies made for lessons, contacting parents, and/or worrying about students getting home. The establishment of predetermined blocks of time for teacher collaboration assisted in the JEPD process developing collective efficacy of elementary teachers.
Suggestions Made by the Teachers about the Process

Suggestions made by the teachers comprised the fifth subcategory and spoke of ideas to improve the implementation of a JEPD session. Of the 13 comments categorized under this subcategory, three subclassifications emerged: planning (n = 7), scheduling (n = 4), and regrouping (n = 4). Each subclassification is discussed next, including representative statements made by the teachers to improve the JEPD process.

**Planning.** There were three suggestions that teachers provided related to planning future JEPD sessions. First, it was suggested that all teachers play a more active role in identifying the overarching goal. Heidi reported, “In the beginning if we make sure everyone has input on what’s happening and on the goal that would be good” (Interview, Literacy Gurus). While the overarching goal was established by the school’s building leadership team, additional teachers provided suggestions on how to better involve all stakeholders. In support of this idea, the second suggestion elaborated on ways to incorporate the thoughts of all teachers into each literacy team. A suggestion made was to begin discussions at the grade level and have the grade level representative share the collaborative ideas during the literacy team sessions. Suzy explained this idea when she shared, “I think that when starting initially it would be nice to work as a grade level” (Interview, Dream Team). Morgan expanded upon Suzy’s comments by saying “maybe have the main goal with all grade levels mixed [and] then go to your own individual teams for discussions instead of only having one or two representatives” speaking their thoughts when the literacy teams meet (Interview, Dream Team). The third suggestion was to provide more information on the adoption process for the new ELA curriculum. The uncertainty impacted the potential effectiveness of the JEPD sessions. Teachers were at an
impasse on how much work to undertake in modifying the ELA curriculum when a greater change could happen in one to three years. This was cogently captured by Laurie when she shared, “Not knowing our future curriculum, some felt we should be doing more, while others thought we should be doing less until we have more facts and materials” (Interview, Literacy Gurus). This uncertainty for the next step appeared difficult for these teachers to wait for an appropriate adoption/implementation plan since it had been over seven years since the implementation of their current ELA program which teachers were already not in favor of prior to its adoption.

**Scheduling.** Scheduling, a second area teachers suggested to improve, alluded to how often the JEPD sessions were scheduled and how far apart they occurred. This was supported by Darla who shared, “I think we need to meet more times. Three times was not enough” (Interview, Party Planners). While the district had scheduled more than three earlier release days for professional development, only three of those days were left to the discretion of the individual school buildings. In her comments, Heather recommended, “Meeting more times throughout the year so that we are not losing our momentum” (Interview, Party Planners). That is, scheduling sessions closer together would minimize the loss of development time spent recapping from the previous sessions. In support of this point, Laura commented, “There was a lot of time between sessions, so we would have to spend a lot of time figuring out what we did in the last meeting” (Interview, Party Planners). The JEPD sessions were scheduled on early dismissal days, and as such, the teachers were at the mercy of the district calendar. The district calendar only had one early dismissal day reserved for individual building agendas in the first semester of the school year and two in the second semester.
Regrouping. The third area of suggestion made by teachers to improve JEPD sessions was classified as regrouping. Recommendations of returning to the whole group or regrouping after the literacy teams met were shared by three teachers. For instance, Laurie explained, “We met at the beginning as a whole staff, but I was just thinking we could end as a whole staff to share ideas and possibly get whole group feedback” (Interview, Literacy Gurus). In support of Laurie’s idea, Silvia recommended, “After we break out, maybe we all come back together that day and read two or three lines of what that group had done” (Interview, Literacy Gurus). By coming back as a whole group, not only is information being communicated among the literacy teams, but also a check-in would occur to ensure that work is not overlapping and is staying on target with the overarching goal.

Summary of Process

Process, the first major theme, referred to the elements associated with carrying out the JEPD sessions. There were four subcategories which represented organizational components that supported the development of CTE through a JEPD approach: Agendas, Objectives, Discussions, and Time. In particular, teachers appreciated agendas: a written document stating what items would be discussed during the JEPD sessions. Agendas, along with objectives (i.e., statements of intended JEPD session outcomes or goals), were also seen as vital to the effectiveness of the JEPD sessions. Discussions between teachers or groups of teachers added to the effectiveness of the JEPD sessions by allowing collaborative conversations that promoted the sharing of knowledge. All these elements could not have been effective if not for the basic fundamental of time -- pre-determined quality period of gathering established for the purpose of collaborative interaction with colleagues.
Ineffective Practices of Process, the fifth subcategory, captured the teachers’ experiences that were counterproductive to the JEPD sessions. Such practices pointed to organizational components that inhibited the development of collective efficacy. Lack of information from central administration about the adoption of the new curriculum led some to believe the work completed during the JEPD sessions could be irrelevant. Teachers also wanted to return back to the whole group for a JEPD closing that included a recap of work completed by the literacy teams during each session.

The final subcategory, Suggestions for Process, provided ideas by the teachers to improve the JEPD process. When planning future sessions, it was suggested to incorporate as many teachers as possible throughout the JEPD experience. Teachers also mentioned it would be beneficial if the scheduling of the sessions where closer together and more often. The final suggestion for improvement called for re-evaluating how the teachers were divided into the literacy teams to keep a team from becoming too large.

The first major theme, Process, relates to the efficacy source of mastery experience. Agendas (n = 8), Objectives (n = 3), Discussions (n = 2), and Time (n = 2) were specific elements of the JEPD sessions that enhanced the teachers’ mastery experience. While two responses reported Ineffective Practices of Process, it was not enough to outweigh the 15 positive comments. Therefore, engaging in a JEPD approach to professional learning amounted to an increase in the confidence of the group’s ability to become proficient at a specific task leading to an increase in the group’s CTE.
Leadership

This section focuses on second major theme, Leadership, which emerged from the data about organizational components that supported or inhibited the development of collective efficacy of elementary teachers. The theme Leadership was operationalized as those individuals who guided or led one of the literacy teams. Two subcategories emerged under Leadership: Chairs/Co-chairs (n =7) and Suggestions Made by Teachers about Leadership (n = 3). Each subcategory is substantiated next.

Chairs/Co-Chairs

Chairs/Co-Chairs, the first subcategory, referred to the teachers who led one of the three literacy teams during the JEPD sessions. Teachers appreciated participating in professional development that was led and kept on track by their peers. Heather supported this idea by sharing that “the chairs and co-chairs were able to lead the meeting keeping us on track” (Interview, Party Planners). In support of Morgan’s comment, Heather shared, “Having a chair person, someone to run and keep the meeting going, was good” (Interview, Dream Team). Adopting a meeting protocol in which an individual, the chair or co-chair, acted as a task manager enhanced the JEPD experience. Teachers expressed that they felt more at ease with taking directives from their peers. The chair and co-chairs promoted an environment in favor of open discussions and shared ownership for solutions to the problems of practice. This was best captured by Laurie when she said, “What also made it effective was having the chair and co-chair being open-minded to what we were discussing. They were open to additional ideas and not just what they had in mind” (Interview, Literacy Gurus). Another meeting protocol the
chairs and co-chairs implemented was the designation of a note taker for each of the JEPD sessions. Note taking supported open and honest communication from all teachers involved. The teachers felt that nothing was being hidden from them nor were their views misconstrued. In support of this point, Regan stated, “I like how there was one person to take the notes and then went back and emailed all of us on what was discussed” (Interview, Party Planners). These teachers welcomed the actions of their literacy team chairs and co-chairs in establishing an effective meeting protocol such a task managing, open discussions, and note taking.

Suggestions Made by the Teachers about Leadership

Suggestions made by the teachers formed the second subcategory and included ideas to improve the leadership piece of a JEPD approach. Leadership, in this section, refers to the district/building leadership and not the chairs/co-chairs. Teachers were in need of more information from this leadership group regarding the adoption of their new ELA curriculum. This research site experienced two unique conditions during the study. First, the building principal was in his last year before retirement. And second, the district’s assistant superintendent was in his first year of employment after replacing a retired administrator who had held the position for 20 plus years. The need for administrative guidance was best captured by Kendall’s comment: “Maybe administrators could be more involved to help us and be more open to our ideas” (Interview, Dream Team). Teachers were searching for answers related to the future ELA curriculum and the new adoption process. Delaying improvements to the curriculum until a full adoption cycle was implemented was not acceptable by the teachers. They felt a change was desperately needed years ago. Kendall extended her thoughts by explaining, “We want to do something to improve our curriculum, but the district is saying just hold on”
(Interview, Dream Team). The administration wanted the teachers to wait until a systematic approach to the selection of a new ELA curriculum was instated. However, the purpose of the JEPD sessions was to make necessary modifications to the current curriculum until that new adoption would occur in three years. A natural complication to the transition of leadership was time needed for understanding and implementing a new process. However, the teachers desired an immediate change because the current curriculum had not met their standard for over seven years. Unsure of how the new adoption process would work raised anxiety among the teaching staff. Kendall closed out her concerns by stating, “Unless you are on that specific district committee you don’t really know what the district’s plan is” (Interview, Dream Team). Meaningful communication between the district level and the teachers was desired. New district committees were being established to address these exact areas of concern; however a channel of communication between district group work and the teachers in the classroom had yet to be successfully established.

Summary of Leadership

The theme of Leadership alluded to individuals who guided or led groups of teachers. Under Leadership were two subcategories: Chairs/Co-chairs, and Suggestions Made by the Teachers about Leadership. Teachers spoke of the effective leadership actions of their peers as task manager, note taker, and facilitator of open discussions during the JEPD sessions. The suggestions for leadership improvement pertained to the minimal role that building and district administration played during the JEPD sessions. With the building principal in his last year before retirement and the assistant superintendent in his first year of employment the guidance
teachers desired was not present, ultimately discouraging teachers’ spirits and the work of the JEPD sessions.

Leadership, the second major theme, also relates to the efficacy source of mastery experience. Peer leadership positively impacted the flow of events and productivity within the JEPD session experience. While it was documented that the district leadership hampered productivity those responses (n = 3) compared to those supporting the positive productive environment (n = 6) were less. Therefore, peer leadership can be considered an organizational component that supported the development of CTE.

Participants

The third major theme, Participants, represents the teachers who engaged in the JEPD sessions. Three subcategories emerged: Organization into Teams (n = 4), Ineffective Practices (n = 4), and Suggestions (n = 2). Each subcategory is described and substantiated next using comments taken from the teachers’ interviews.

Organization into Teams

Organization into Teams referred to the process by which teachers were divided among one of the three literacy teams. During the interviews, the teachers described that how they were organized into groups greatly benefitted the overall purpose of the JEPD sessions. Suzy commented, “What made it effective were people signed up for where they felt they would be able to benefit the school the most” (Interview, Dream Team). Teachers who were able to see literacy beyond current needs served on the Dream Team while teachers strong in literacy development joined the Literacy Gurus. The Party Planners were those teachers who were
skilled in planning engaging events connected to literacy. Each literacy team had representatives from each grade level and specialty support teams. For instance, Lindsey explained, “I think the representation overall from Kindergarten through fourth grade was effective so everyone was well represented” (Interview, Dream Team). The three literacy teams had multiple representatives from each grade level and area of specialty. In support of this point, Suzy and Lindsey commented on the benefits of “having two members from each grade level on the team.” Lindsey shared in her interview that “if one teacher was absent from that session the work would not cease.” Suzy liked having another member from her team so that when necessary “you could also break into grade levels and work on what you needed to work on with your partner, and sometimes it’s easier when you have two people and not just one” (Interview, Dream Team). The JEPD sessions not only provided opportunities to work within your own grade level but in levels surrounding each other. In support of this thought, Bella commented, “I like how we broke into K-2 and 3-4 because we kind of do different things in regard to strategies and higher level thinking at third and fourth grade” (Interview, Dream Team). Teaming up between lower and upper elementary grade levels promoted curricular work that facilitated growth along a vertical line as well as a horizontal.

Ineffective Practices of Participants

The second subcategory included Ineffective Practices of Participants during JEPD sessions teachers saw as counterproductive. In particular, the teachers felt the large size of the Party Planners literacy team complicated the willingness of teachers to participate, including some teachers being intimidated to participate in discussions. As Rose indicated, “You have to be a little bit braver person or maybe had been in the school longer to feel like you wanted to risk
sharing your input out loud in front of such a large group” (Interview, Party Planners). Darla extended Rose’s thoughts by noting that in this same literacy team there were “a lot of side conversations” occurring, making it difficult to hear one another or encourage participation of less confident individuals (Interview, Party Planners). Once an individual had the courage to share in front of a large group it was their hope that their thoughts would be considered with respect. Witnessing side conversations could be perceived as negative feedback even if the talk was an extension of an idea just shared with the group.

Suggestions Made by the Teachers about Participation

In the third subcategory, teachers made suggestions about enhancing their participation in the JEPD sessions. As mentioned in the previous section of ineffective practices of participants, the teachers saw the group size of one literacy team as too large. Knowing that the entire building staff was asked to be on one of the teams, it was a given that one or more of the teams may be of a larger size. Darla, one of the literacy team leaders, reflected on the group size and shared “I would have liked to get into smaller groups to better utilize the time and be more productive” (Interview, Party Planners). Suzy supported Darla’s reflection when sharing how she liked her literacy team when they “broke into grade levels and worked on what you needed to work on” (Interview, Dream Team). Subdividing the teams into smaller units then refining the objective to the individual grade levels could be an effective way to address groups with large numbers.
Summary of Participants

The third and final major theme, Participants, referred to the teachers who were engaged in the JEPD sessions. Three subcategories were discussed in this theme: Organization into Teams, Ineffective Practices of Participants, and Suggestions made by the Teachers about Participation. Teachers favored having the opportunity to choose the literacy team in which to participate within. Also favored was the composition of the literacy teams which included a vertical approach and incorporation of more than one member from each grade level and support team. However, one ineffective practice was mentioned: the size of a literacy team. The large group size compromised the ability for some teachers to share and led to numerous side conversations on or off topic. To address this concern, the suggestion of breaking the large group into smaller more manageable groups was made to enhance the JEPD experience for all.

Participants, the third major theme, relate to the efficacy source of affect states. Affect states entails the level of anxiety, stress, or arousal one experiences during the JEPD sessions. Providing the ability to choose one’s own path builds human agency. Collaboration within and across grade levels and support teams made the task more manageable. Human agency and division of work can lower the level of anxiety or stress the teachers experienced during the JEPD sessions. Therefore, the theme of Participants can be considered to have supported the CTE source of affect states the development of CTE.

Summary for Research Question 2

Bandura (1993) identified four main sources of collective efficacy: Mastery Experience, Vicarious Experience, Verbal Persuasion, and Affect States. Through analysis of the data
gathered to answer this research question three main themes of organizational components emerged: Process, Leadership, and Participants. The organizational components of Process and Leadership documented responses that led to an enhancement of the CTE source of Mastery Experience. Teachers’ responses in the organizational component of Participants indicated an influence in the CTE source of Affect States. When taken collectively, the data appear to indicate these components supported the development of collective efficacy for these elementary teachers.

Research Questions 3
What role, if any, do the four primary sources of self-efficacy play when using a job-embedded professional development approach to develop collective efficacy beliefs of elementary teachers?

Information to answer this research question is organized by the four sources of efficacy: Mastery Experience, Vicarious Experience, Verbal Persuasion, and Affect States. For Mastery Experience, the data were taken from the interviews held at the end of the study. For Vicarious Experience and Verbal Persuasion, data came from the individual reflection journals completed at the end of each JEPF session. However, individual reflection journal and interview data were both used for Affect States. Table 4.6 presents the four main themes, their subcategories, and a tally of how many comments were categories under each.
### Table 4.6

Roles of Primary Sources of Efficacy

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subcategory</th>
<th>Definition</th>
<th># of Comments</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery Experience</td>
<td></td>
<td>“Acquiring the cognitive, behavioral, and self-regulatory tools for creating and executing an effective course of action to manage ever-changing life circumstances” (Bandura, 1986, p. 80).</td>
<td>42 Total Comments</td>
<td>Interview</td>
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<tr>
<td>Fluidity</td>
<td></td>
<td>The flow of work from one JEPD session to another.</td>
<td>16</td>
<td>Interview</td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
<td>A group of teachers working together towards a common objective or goal.</td>
<td>8</td>
<td>Interview</td>
</tr>
<tr>
<td>Content</td>
<td></td>
<td>Items discussed during the JEPD sessions.</td>
<td>4</td>
<td>Interview</td>
</tr>
<tr>
<td>Leadership</td>
<td></td>
<td>A teacher(s) who guides or leads a JEPD team.</td>
<td>3</td>
<td>Interview</td>
</tr>
<tr>
<td>Ineffective Experiences</td>
<td></td>
<td>Those actions seen as counterproductive.</td>
<td>11</td>
<td>Interview</td>
</tr>
<tr>
<td>Vicarious Experience</td>
<td>More likely to incorporate instructional changes</td>
<td>Participation in JEPD session(s) will lead to teacher implementing instructional changes in the classroom.</td>
<td>45</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td></td>
<td>Less likely to incorporate instructional changes</td>
<td>Participation in JEPD session(s) will not lead to teacher implementing instructional changes in the classroom.</td>
<td>14</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td></td>
<td>Indifferent</td>
<td>Changes in classroom instruction would have occurred even without participation in JEPD session(s).</td>
<td>2</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td>Verbal Persuasion</td>
<td></td>
<td>The influence others have through language interactions supporting an individual’s capabilities for mastering a task (Bandura, 1997).</td>
<td>76 Total Comments</td>
<td>Reflective Journal and Interview</td>
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Table cont. from previous page

<table>
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<tr>
<th>Verbal Discourse</th>
<th>Response to the monologue that occurred during the JEPD sessions.</th>
<th>16</th>
<th>Interview</th>
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<tbody>
<tr>
<td>Verbal Persuasion was influential</td>
<td>Peers impacted participant’s level of motivation towards instruction changes.</td>
<td>50</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td>Verbal Persuasion was not influential</td>
<td>Peers did not impacted participant’s level of motivation towards instruction changes.</td>
<td>6</td>
<td>Reflective Journal</td>
</tr>
<tr>
<td>Verbal Persuasion was somewhat influential</td>
<td>Peers somewhat impacted participant’s level of motivation towards instructional changes.</td>
<td>4</td>
<td>Reflective Journal</td>
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</table>

**Affect States**

<table>
<thead>
<tr>
<th>Affect State was Positively Influenced</th>
<th>Feelings of excitement or anxiety associated with an individual’s or group’s perceptions about their capability or incompetence (Bandura, 1986).</th>
<th>87 Total Comments</th>
<th>Reflective Journal and Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect State was Negatively Influenced</td>
<td>Experiences that raised the anxiety of teachers.</td>
<td>13</td>
<td>Interview</td>
</tr>
</tbody>
</table>

**Mastery Experience**

Mastery experience refers to “acquiring the cognitive, behavioral, and self-regulatory tools for creating and executing an effective course of action to manage ever-changing life circumstances” (Bandura, 1986, p. 80). That is, mastery experience refers to an individual’s ability to effectively adapt and respond to an ever-changing environment. There were three interview questions that related to mastery experience. Five subcategories emerged as the data were analyzed: Fluidity, Collaboration, Content, Leadership, and Ineffective Experiences (see Appendix I for axial coding of Research Question 3 Mastery Experience).
Fluidity

Fluidity refers to the flow of work from one JEPD session to another. Analysis of the data related to JEPD fluidity revealed three reasons that supported why the JEPD sessions became more fluent as the school year went on: understanding JEPD, maintaining focus, and building on previous work. These reasons are discussed next along with supportive remarks shared by the teachers.

Understanding the logistics of a JEPD approach to professional learning was key to aiding in the fluidity of work conducted over an extended period of time. This study was the first experience these teachers had with the idea of JEPD. Transitioning to professional learning completely at the hands of teacher participants was an adjustment from the norm of a direct workshop approach decided upon by building administration. Laurie explained this point by sharing, “It became more fluent due to knowing what to expect and how we converse with each other” (Interview, Literacy Gurus). Initial concerns voiced by teachers were the amount of work that this new approach would require of them, especially as workload continued to increase with the adoption of CCSS and the new teacher evaluation system. Kendall explained this best by saying, “As we learned more about it [JEPD], it was able to become more fluent. We were fearful in thinking it was going to be something more than what it was” (Interview, Dream Team). Silvia extended Kendall’s thoughts by saying, “We thought it [JEPD] was going to be one more thing we would have to do during our day” (Interview, Literacy Gurus). Once teachers comprehended the systematic approach of JEPD, and how the objectives and goals addressed current problems of practice in the classroom, the relevance of their work in the JEPD sessions became evident. In support of this point Rose shared, “As our purpose became clearer, the
sessions began to flow” (Interview, Literacy Gurus). With any new practice, teacher understanding and general participation appears to have assisted in the flow of action. For instance, Paula shared, “When you start any project, you’re not sure where you’re going, but after getting together a couple of times you start smoothing out some wrinkles” (Interview, Literacy Gurus. Participating in JEPD allowed the teachers to gather a clearer understanding of the model of professional learning thus contributing to the fluidity of work from session to session.

The next reason teachers found the JEPD experience fluid was they could build upon previous work done. Bella explained, “The session really built on what we did the last time, and we always went back and touched on what we talked about previously” (Interview, Dream Team). Working with the same group of colleagues also influenced flow between JEPD sessions. Lindsey described the group dynamics when she explained, “The more you’re with certain people, the more open you’re going to be and honest and willing to speak up” (Interview, Dream Team). Developing a level of rapport with colleagues and getting to know their experiences, areas of expertise, and communication styles appeared to impact the success of the JEPD sessions. Laura supported this idea by stating, “We knew what needed to be done and who was able to handle what type of thing” (Interview, Party Planners). Shannon extended Laura’s thoughts by saying, “We respected each other’s knowledge and what they could contribute” (Interview, Dream Team). These teachers’ thoughts all supported the subcategory that building upon work initiated in the previous JEPD sessions enhanced the fluidity of the JEPD experience.

The final reason teachers found the JEPD experience fluid was the opportunity to maintain focus over time. Establishing an overarching goal that required attention over a sustained period of time provided a sense of fluidity. In support of this idea, Kendall shared,
“Keeping a goal going helped in fluidity between sessions” (Interview, Dream Team). Initially in the JEPD sessions, time was needed for the teams to arrive at a consensus on how to address their goal and move forward. In support of this point, Sophia shared, “Once we figured out what we agreed on doing and what we wanted to do, the JEPD sessions became fluent” (Interview, Party Planner). Heather added to Sophia’s thoughts by saying, “It became more fluent as we narrowed down what we were talking about” (Interview, Party Planner). As a result, maintaining focus through the use of overarching goals contributed to the fluidity of the JEPD sessions.

Data showed all but one teacher interviewed agreed that the JEPD sessions became more fluid as the study went on. Suzy, who disagreed about sessions becoming fluent, stated, “Maybe it was just a hiccup in the road. I think it was because we were switching gears that we hit that bump” (Interview, Dream Team). The Dream Team had achieved their initial objective of reviewing literacy standards across the grade levels by the second JEPD session. The third session in which Suzy referred to in her statement focused on a new objective of incorporating the Next Generation Science Standards (NGSS) into practice. This discussion had by the Dream Team was the first of its kind in the building and the team was working to establish a plan on how to begin NGSS implementation.

With their overarching literacy goal met by the second JEPD session, the Dream Team transitioned to implementing the Next Generation Science Standards (NGSS). This was the first collaborative conversation had in the school about adoption of the NGSS and the teachers faced having to identify a starting point with minimal administrative support. While one teacher disagreed that the JEPD sessions did not become more fluid, 15 teachers provided supportive reasons such as further understanding of the JEPD approach, maintaining focus, and building on
previous work as contributors to the JEPD session becoming more fluid. Therefore, fluidity can be considered a behavioral tool that led to an influence on mastery experience.

**Collaboration**

Collaboration, the second subcategory, refers to a group of teachers working together towards a common objective or goal. One purpose of the JEPD approach was to schedule time for teachers to collaborate, during which they were encouraged to work vertically with other grade levels to evaluate the advancement of literacy skills. Suzy explained the benefits by sharing, “It was great to have that time to meet with other grade levels” (Interview, Dream Team). With the overarching goal to improve literacy skills, working between grade levels allowed the teachers to learn which skills were being omitted from practice or which skills needed a deeper instructional approach. Paige shared, “Being able to discuss with the grade levels close to us really helps when working toward the goal” (Interview, Dream Team). Silvia built upon Paige’s thoughts by expressing, “The thing I liked the most about meeting as a group was just to be able to discuss all of our concerns” (Interview, Literacy Gurus). It was encouraging for this group of teachers to hear from colleagues that they shared the same worries and were interested in how to address such issues.

While the JEPD sessions offered opportunities to discuss concerns, it also presented an opening for the teachers to share ideas. For instance, Heidi declared, “I think the best part was being able to share ideas with one another and actually work on things that we can use every day in our classroom” (Interview, Literacy Gurus). In fact, some teachers simply enjoyed listening and taking in all the experiences that were shared. For example, Paula stated, “The part I liked best was listening to everyone and seeing what they were doing and needed” (Interview, Literacy
The opportunity for collaboration opened the discussion floor for all ideas to be heard. In the past, ideas were brought to the attention of building administration; however, the ideas stopped there and were not up for discussion among the whole staff. In support of this point, Heather stated, “We all have lots of ideas and some new ideas that we haven’t discussed before” (Interview, Party Planners). New teachers relished in the chance to listen and participate in these collaborative conversations. Bella contributed to this idea by sharing, “In my perspective it is nice as a first-year teacher hearing from veteran teachers because I am still learning the curriculum and trying to improve it as I’m seeing it for the first time” (Interview, Dream Team). Craig, another new teacher, extended Bella’s thoughts by saying “seeing other teachers and what they use in the classroom worked well for me” (Interview, Literacy Gurus). Learning from each other and experiencing an opportunity to work together were two concepts associated with collaboration that teachers appreciated during the JEPD sessions. Teachers indicated that as a result of collaboration they were able to have productive discussions about literacy concerns and share ideas on how to address those concerns. Therefore, collaboration was another behavioral tool that led to mastery experience.

**Content**

Content, the third subcategory of mastery experience, describes the topics that were discussed during the JEPD sessions. The fact that the JEPD sessions promoted authentic conversations about teachers’ day-to-day happenings received rave reviews from teachers. For example, Heidi responded by saying, “I think the best part was being able to share ideas with one another and actually work on things that we can use every day in our classroom” (Interview, Literacy Gurus). In support of this thought, Kendall explained, “It worked well when we all had
the same ideas that we wanted to work on” (Interview, Dream Team). That is, through the act of sharing ideas, teacher came to the realization that they shared common concerns, and had common suggestions on how to address the concerns. The opportunity to share current curricular practices in their classrooms evolved into further conversations on ways to achieve the overarching goal. Lindsey provided this perspective: “We know what our goals are and were able to break it down per grade level of what is expected at each grade level” (Interview, Dream Team). Bella expanded upon Lindsey’s thoughts by adding at one point in their JEPD work, “we broke into K-2 and 3-4 because we do different things in regards to reading strategies” (Interview, Dream Team). By having the opportunity to discuss curriculum content during the JEPD sessions, teachers gained insightful knowledge about literacy skill progression from grades K-4. This acquired knowledge served as a foundation to improve literacy instruction for students in preparation for the following grade. Developing content knowledge contributed to the cognitive tools these teachers utilized in addressing and implementing necessary literacy changes. Thus, the CTE source of mastery experience was influenced.

**Leadership**

Leadership, the fourth subcategory, was defined as a teacher(s) who guided or led a JEPD team. The data indicated that teachers appreciated the leadership by their own colleagues. These leaders understood the value of each other’s time and ensured that the JEPD sessions were pertinent, on-task and productive. Regan supported this thought by saying, “What worked well was we had one person leading the group” (Interview, Party Planners). At the beginning of the study, norms were initiated by the researcher during a meeting with the prospective literacy team chairs and co-chairs. In this meeting, the researcher established the positions of chair and co-
chair for each literacy team to share the responsibilities that come with a leadership position.

The researcher coached the leaders by encouraging meeting norms, such as agendas, objectives, a note taker, time keeper, establishing open communication and a consistent meeting place. The researcher also coordinated a meeting of the chairs and co-chairs two weeks prior to each JEPD session to assist in the creation and coordination of each literacy team objective. One role established by the researcher that the leadership team appreciated was having another teacher to share the work of organizing each of the JEPD sessions. The purpose of initiating a co-leadership role was to provide support to the leadership roles by having a partner to work with on the details. Cadence, a JEPD session leader, explained “it was nice having another partner there to help plan and run the meetings” (Interview, Literacy Guru). Shannon added to Cadence thoughts by saying, “Sharing the leadership role was valuable both to me and the literacy team. I did not want to be the only teacher making decisions on direction for the whole group” (Interview, Chair of the Dream Team). Leadership was a type of behavioral tool that promoted an environment for teachers to grow and overcome obstacles in a healthy supportive environment, thus incorporating the CTE source of mastery experience.

Ineffective Experiences

Ineffective experiences, the fourth and final subcategory, included those practices that were counterproductive in producing a mastery experience. Teachers were asked to share practices that hindered collective work towards the overarching literacy goals. The data revealed three ideas focused on planning and improving future JEPD sessions: challenges caused by participation, hesitant leadership at the district and building levels, and lack of understanding about the JEPD process.
Challenges caused by participation. Challenges caused by participation pertained to the groups’ verbal dynamics during the JEPD sessions. For example, Laurie indicated that “not all levels participated in sharing as much as others” (Interview, Literacy Gurus). Various reasons contributed to a teacher’s desire to withhold participation. For instance, Bella explained her contribution by saying, “My experience with the curriculum is not as thorough, so I do not have as much input as others” (Interview, Dream Team). Rose added to the idea of low participation by commenting, “I think the group was too big. There were a lot of people who did not say anything because it’s risky to share your ideas in front of a large group” (Interview, Party Planners). The teachers noted that group size as well as overcoming the side conversations that occurred in the bigger group was intimidating. Darla explained this best: “I felt like I was talking over people. There were a lot of side conversation going on and it wasn’t like we were working together as one team” (Interview, Party Planners). Another attribute contributing towards challenges to participation was the tone of the conversations during the JEPD sessions. Heidi indicated, “One meeting in particular was kind of a session of complaining, but it was good to hear from other people” (Interview, Literacy Gurus). Suzy had a similar experience and shared that “the whole topic just all of a sudden got very negative and overwhelming to where we didn’t have a purpose and it was too much” (Interview, Dream Team). Teachers indicated that challenges caused by participation were a result of a lack of verbal participation from all teachers and a negative verbal tone during the JEPD sessions. These actions appeared to be behavioral tools that negatively influenced the CTE source of mastery experience.

Hesitant leadership at the district and building levels. Leadership in this section referred to building and central administration. Teachers reported that the lack of involvement by building and central administration inhibited the productiveness of the JEPD sessions. These
teachers were anxious to make changes to an ELA curriculum that, in their opinion, was long overdue for replacement. However, without insight from administration about next steps for curricular adoption, teachers were indifferent regarding how much and what to change until a new full curricular implementation occurred. This was best reported by Kendell when she shared, “We’re so anxious and ready and wanting to do this, but administration is saying hold on, hold on” (Interview, Dream Team). Past central administration did not encourage or support teachers in modifying adopted published programs to accommodate to current classroom needs. It was of these teachers’ opinion that the current ELA current has been insufficient since its implementation seven years ago. However, new central administration saw the need for program modification based on student data, but they wanted teachers to wait until a proper adoption process was implemented. District administrators indicated that a proper process would take up to three years and was scheduled to begin the following school year. Paige summarized the feelings of the group best when she said, “It’s hard to reach a goal when you don’t have definite answers” (Interview, Dream Team). Paige was referring to central administration’s support to change current curriculum; however, the administration would not comment on the idea of teachers moving forward with immediate modifications. They wanted to wait three more years for a new ELA program. Because of their stance, building and central administration negatively impacted the role of leadership causing an unfavorable influence on mastery experience.

Lack of understanding about the JEPD process. Teachers expressed how lack of understanding the JEPD process from the beginning inhibited their experience. Since this was a new experience for the teachers in this study, the first JEPD session was spent observing the steps and actions that occur in a JEPD approach. Paula shared, “We were just trying to figure things out. Didn’t even know where we were going” (Interview, Literacy Gurus). Attempts by
the researcher were made to educate teachers on a JEPD approach prior to beginning the study, but efforts were met with resistance by central and building administration. Initially, the building administrator was not in support of this study taking place within his building, therefore any requests for time during professional development days prior to the launch of the study to educate the teachers on a JEPD approach was denied. As a result of minimal training about the JEPD approach, one literacy team learned that they planned too many objectives and they did not allow enough time for collaborative conversations. For example, Laura shared, “We were trying to get too many things done” (Interview, Party Planners). Heather also recognized the conflict between too much to do and not enough time when she commented “it is a matter of streamlining things” (Interview, Party Planners). Teachers were given only an hour for the JEPD sessions. Their excitement and motivation at the opportunity to collaborate on current classroom needs inspired over-extended lists which were eventually itemized and prioritized. After the first session, the literacy teams gained the understanding they desired and had minimal complications in the remaining JEPD sessions.

Summary of ineffective experiences. Identification of things that did not go well does not validate saying the entire JEPD session did not go well. The teachers provided insight into areas to make future JEPD experiences more enjoyable and productive. Addressing concerns such as creating an environment in which all individuals felt comfortable participating as well as attending to the group size can add to the positive experience of a JEPD approach. The teachers expressed their desire for building and district leadership involvement to help answer questions and serve as a guide. Their final suggestion was to have a greater understanding of the JEPD approach prior to beginning the first session.
Summary of Mastery Experiences

Teachers identified elements within a JEPD approach to professional learning that enhanced the efficacy source of mastery experience. Centering session objectives on an overarching goal promoted a sustained learning environment leading to fluid interactions among the teachers. Collaborating among colleagues created a support system while revealing new ideas or revitalizing old ones. At the center of the JEPD approach to professional learning was learning focused on current needs in practice, and the teachers indicated that the content of the JEPD sessions in this study did just that. The element of peer leadership acted as a facilitator to the elements of fluidity, collaboration, and content. Teachers also offered suggestions on participation, leadership, and the JEPD model to enhance future JEPD sessions. Together fluidity, collaboration, content, and leadership were the cognitive, behavioral, and self-regulatory tools that the teachers in this study used to create and execute an effective course of action to address the needs in their classrooms. Therefore, mastery experience played a positive role in developing CTE through the JEPD approach for these elementary teachers.

Vicarious Experience

Vicarious experience is considered the second source of efficacy and is defined as “seeing people similar to themselves succeed by perseverant effort raises observers’ beliefs that they, too, possess the capabilities to master comparable activities” (Bandura, 1995, p.3). Data for vicarious experience were collected through one question on the individual reflection journals completed by the teachers after each JEPD session (i.e., Were they were more or less likely to incorporate changes in instructional practices since participating in the JEPD sessions). Three
subcategories summarized the teachers’ responses: more likely, less likely, or indifferent. See Table 4.7 for an overview of the theme Vicarious Experience, its subcategories, and a tally of how many comments were categorized under each.

Not all three themes were present in each JEPD session (see Appendix J for axial coding of Research Question 3 Vicarious Experience). Breakdown of responses from each of the three JEPD sessions are displayed in Table 4.8.

<table>
<thead>
<tr>
<th>Subcategory*</th>
<th>Definition</th>
<th># of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Likely</td>
<td>Participation in JEPD sessions will lead to teachers implementing instructional changes in the classroom.</td>
<td>45 Total Comments</td>
</tr>
<tr>
<td>Instructional Practices Influenced</td>
<td>Classroom lesson delivery was impacted.</td>
<td>27</td>
</tr>
<tr>
<td>Curriculum Influenced</td>
<td>Content taught was impacted.</td>
<td>12</td>
</tr>
<tr>
<td>More Likely</td>
<td>Teachers responded “more likely” with no further explanation.</td>
<td>6</td>
</tr>
<tr>
<td>Less Likely</td>
<td>Participation in JEPD sessions will not lead to teachers implementing instructional changes in the classroom.</td>
<td>14 Total Comments</td>
</tr>
<tr>
<td>Instructional Practices Not Influenced</td>
<td>Classroom lesson delivery was not impacted.</td>
<td>7</td>
</tr>
<tr>
<td>Less Likely</td>
<td>Teachers responded “less likely” with no further explanation.</td>
<td>7</td>
</tr>
<tr>
<td>Indifferent</td>
<td>Changes in classroom instruction would have occurred even without participation in JEPD sessions.</td>
<td>2 Total Comments</td>
</tr>
</tbody>
</table>

* see Appendix J for axial coding of Research Question 3 Vicarious Experience
Table 4.8

Responses for Individual Reflection Journal for Vicarious Experience

<table>
<thead>
<tr>
<th></th>
<th>More Likely</th>
<th>Less Likely</th>
<th>Indifferent</th>
</tr>
</thead>
<tbody>
<tr>
<td>October Journal</td>
<td>14</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>January Journal</td>
<td>15</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>March Journal</td>
<td>16</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

More Likely to Incorporate Changes

Listening and watching colleagues model and demonstrate successful practices in their classroom motivated teachers to make changes when instruction or curriculum was influenced. This cause and effect action demonstrated the outcomes that can occur when the efficacy source of vicarious experience is utilized.

Instructional practices influenced. When analyzing the data, three reasons emerged to explain how instructional practices were influenced by the JEPD sessions: student engagement, additional resources, and collaborative support. When content from the JEPD session promoted changes that would engage students in learning, the teachers were eager to learn more about implementing such practices within their own classroom. For instance, Laurie shared, “I want to do what is best for my students’ education, for real life and standardized testing” (October Reflection Journal, Literacy Gurus). Activities discussed during the JEPD session addressed instructional strategies using current best practices. Craig supported this point by explaining, “Meeting with my group showed me more strategies I can use with my students” (October Reflection Journal, Literacy Gurus). These best practices that were shared had an added twist of excitement. Heather confirmed this when saying “these activities allowed me to help motivate
my students” (January Reflection Journal, Party Planners). Craig added to the idea of student engagement by saying that these newly learned strategies “will help my students stay on task” (March Reflection Journal, Literacy Gurus). New teachers also discovered that turning activities into games created an environment enthusiastic for learning. For example, Laura shared that she will “incorporate more games/activities into her daily instruction and on just reserve them for special days since the kids get so excited” (March Reflection Journal, Party Planners). For those teachers who were already engaged in these positive, motivating instructional activities, they received validation from their colleagues’ enthusiasm to continue with such actions. Both Regan (March Reflection Journal, Party Planners) and Sabrina (March Reflection Journal, Dream Team) stated they are “likely to keep activities going in my room” as a result of receiving verbal encouragement from their colleagues to incorporate or maintain activities that promoted student engagement.

Teachers’ responses also indicated that some of the JEPD sessions provided additional instructional resources that could be immediately used in their classrooms. One such example included the Dream Team who worked to develop a common language when teaching language arts. As a result of this work, Lindsey stated, “I will be adjusting my own use of vocabulary” (October Reflection Journal, Dream Team). Upon achieving that objective, the Dream Team transitioned to deliberating about shared reading objectives and sequence of content delivery. The resulting tool was a continuum using a gradual release model for shared and guided reading instruction. Kendall expressed that it will be “helpful to have some guidance while the literacy program is being created” (January Reflection Journal, Dream Team). The continuum outlined monthly reading comprehension skills for teachers to introduce in shared reading and support during small group guided reading instruction. In support of this point, Paige shared having this
“timeline for guided reading will give me something to follow for small group instruction” (January Reflection Journal, Dream Team). Utilizing a JEPD approached allowed for teachers to assemble much needed resources facilitating instructional changes in the classroom.

The Literacy Gurus, however, spent their time in the JEPD sessions sharing and brainstorming instructional resources that would assist in closing the learning to doing gap noted in the students’ literacy data. For instance, Craig explained, “I learned about a variety of different resources that I could use” (January Reflection Journal, Literacy Gurus). One resource the Literacy Gurus created was an agreed upon list of symbols to use when teaching students about close reading. Savannah commented, “I have a better understanding of what close reading is and what symbols to use” (March Reflection Journal, Literacy Gurus). Expanding upon the list of symbols, Heidi shared that “additional markings were added to what I currently do” so she will be incorporating those changes into her instructional practices (March Reflection Journal, Literacy Gurus). When instructional practices were discussed during the JEPD sessions and found to be timely as well as pragmatic, teachers were more likely to incorporate changes. The influential changes came through the modeling and sharing from their peers, or the vicarious experience of their peers.

Curriculum influenced. Analysis of data revealed two curricular areas in literacy instruction that were weak and in need of attention: incorporation of nonfiction text, and application of updated reading comprehension strategies. For example, Shannon stated, “The sessions have identified the goals or holes in our current curricular practices” (October Reflection Journal, Dream Team). Through the use of student data, the teaching staff identified a lack of curricular focus on nonfiction text within their classrooms. Sadie explained, “Since our school is struggling with information, I will begin to incorporate more information text in the
The current ELA published curriculum provided very little instructional time towards reading and exploring features of nonfiction text. As a result of knowledge gained through the JEPD sessions, Savannah indicated, “I will incorporate different passages to increase nonfiction understanding” (October Reflection Journal, Literacy Gurus). Other suggestions that resulted from collaborating on addressing the weakness in nonfiction text included teachers identifying the need to incorporate more guided reading instruction and note taking skills. This was supported by Paula who commented on incorporating the “use of more non-fiction text in guided reading groups” (October Reflection Journal, Literacy Gurus). Likewise, Aaron reported that he will be “including more note taking skill on nonfiction and relating fiction to nonfiction” (January Reflection Journal, Literacy Gurus). While the Literacy Gurus focused on adding nonfiction text to the literacy curriculum, the Dream Team focused on a reading continuum as mentioned earlier. Since this continuum was used with great success prior to the adoption of the current published reading program, it was well received for reimplementation. For instance, Shannon shared, “I am familiar with this model and experienced a great amount of success with my students when utilizing this model” (January Reflection Journal, Dream Team). Teachers are looking forward to having clear objectives that address the current requirements of the CCSS. This was best captured by Lola when she explained, “changes can occur now that there is a clear continuum of what we are supposed to do and follow” (January Reflection Journal, Dream Team). When curricular changes are influenced during the JEPD sessions, teachers indicated that they were more likely to incorporate those changes. It is important to note that the vicarious experience or modeling of success from their peers were the source of influence upon the teachers.
Summary of more likely to incorporate instructional changes. The vicarious experience of peers had an impact on teachers’ decisions to incorporate instruction changes. Through collaborative conversations peers shared their experiences with instructional and curricular changes within their classroom. These experiences included disclosure of obstacles that were overcome during change implementation. Teachers related to their peers’ obstacles as they are the same challenges these teachers face within their own classrooms. Because of hearing their peers engage in change and overcome the same obstacles they faced, teachers were influenced by the CTE source of vicarious experience.

Less Likely to Incorporate Instructional Changes

Changes were less likely to happen when the session did not influence instructional practices or no product was produced for implementation. Five responses that supported less likely to incorporate instructional changes came from teachers in the Party Planners literacy team since their purpose was to promote whole school and school-to-family literacy events. For example, Rose stated that our “objective was to plan meaningful activities for students, not to improve our teaching” (October Reflection Journal, Party Planners). Cadence continued on by saying “this aspect of literacy provided more opportunities to confer on how to create school wide activities and promote family involvement” (March Reflection Journal, Party Planners). Diana agreed as well by responding, “I feel like my job as leader of the Party Planners does not require too much of instructional change” (January Reflection Journal, Party Planners). Two of the remaining nine responses indicated that the necessary resources to make changes in the classroom were not presented during the JEPD sessions. In support of this point, Sally stated the JEPD session “didn’t provide me the instructional practices I need at my grade level” (October
Reflection Journal, Literacy Gurus). While Paige acquired the necessary resources however she “just did not know where to go from here” (March Reflection Journal, Dream Team). Paige indicated that she did receive valuable resources through the JEPD sessions, but lacked guidance on how to utilize newly acquired sources.

Four teachers responded less likely to incorporate change after the JEPD sessions because no product was produced during the session for implementation. For instance, Paula simply stated, “Nothing was actually changed” (January Reflection Journal, Literacy Gurus). One teacher recognized that her literacy team was in the process of adopting an agreed upon change and when that occurred she would implement that change. In support of this thought, Sally replied, “Once annotation symbols are agreed upon, I will incorporate them into my instructional practices in literacy” (January Reflection Journal, Literacy Gurus). While teachers were given more opportunity to impact changes in the classroom, one teacher reported change being limited. Felicia responded we “have limited ways in doing the actual changing” (January Reflection Journal, Literacy Gurus). Felicia was referring to the lack of valid literacy text for modeling lessons as well as the lack of multiple copies of valid literacy text for the students to use while working with the teacher. The remaining seven teachers’ responses simply stated less likely with no further explanation as to why. When instructional changes are not influenced or an end product is not produced for implementation, teachers indicated that they were less likely to incorporate change within their classroom instruction.

Indifferent to JEPD Influence

The final subcategory, Indifferent to JEPD Influence, spoke of how changes in the classroom instruction would have occurred even without participation in the JEPD sessions. In
the Individual Reflection Journals, two teachers were indifferent or that they would have incorporated change regardless of their JEPD participation. For example, Laurie stated, “I would have incorporated change either way” (March Reflection Journal, Literacy Gurus). And Felicia added, “I always try to do the best for my students” (October Reflection Journal, Literacy Gurus). These teachers acknowledged that a continuous part of their job is to identify and address student needs whether professional learning guides them to or not.

**Summary of Vicarious Experience**

Teachers were more likely to incorporate changes in instructional practices after participating in these JEPD sessions when the session’s content directly impacted instructional practices or the day-to-day curriculum taught. In contrast, the teachers were less likely to change instructional practices when they believed the outcome of the JEPD session did not seem to indicate a change or they did not receive the necessary resources to help make change happen. Yet two teachers did not feel motivated to change as a result of the JEPD sessions because improving instruction is a constant standard of practice for them.

At the center of the JEPD sessions were collaborative discussions in which colleagues shared literacy changes that have been made within their classroom. These teachers openly shared that with persistence they overcame the same obstacles as their colleagues when implementing literacy instructional changes. Thus, vicarious experience was exercised through colleagues modeling situations of change demonstrating no adverse consequences of such change that resulted in peers desiring to pursue such changes themselves. Therefore, vicarious experience played a role in developing the CTE of elementary teachers through a JEPD approach to professional learning.
Verbal Persuasion

Verbal persuasion speaks of the influence others have on an individual’s capabilities through verbal interactions (Bandura, 1997). The data showed that during the JEPD sessions peers did influence teachers’ perceived capabilities. Three major subcategories emerged as to the role verbal persuasion played when using a JEPD approach to develop CTE (see Table 4.9). The definitions provided in Table 4.9 were constructed by the researcher.

Table 4.9
Verbal Persuasion Reflection Journal Responses

<table>
<thead>
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<th>Subcategory*</th>
<th>Definition</th>
<th># of Comments</th>
<th>Source of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Disposition</td>
<td>The teachers’ perception of verbal tone during the JEPD sessions.</td>
<td>13 Total Comments</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>A tone that was respectful, collaborative, and constructive.</td>
<td>8</td>
<td>Interview</td>
</tr>
<tr>
<td>Informal</td>
<td>A positive, causal, and inviting tone.</td>
<td>5</td>
<td>Interview</td>
</tr>
<tr>
<td>Verbal Persuasion was influential</td>
<td>Peers impacted other’s level of motivation towards instructional changes.</td>
<td>37 Total Comments</td>
<td></td>
</tr>
<tr>
<td>Learning from Peers</td>
<td>Teachers implemented information gained from JEPD sessions.</td>
<td>21</td>
<td>Reflection Journal</td>
</tr>
<tr>
<td>Collaboration</td>
<td>A group of individuals working together towards a common objective or goal.</td>
<td>9</td>
<td>Reflection Journal</td>
</tr>
<tr>
<td>Inspired Motivation</td>
<td>Teachers were encouraged by their peers to implement instructional changes.</td>
<td>7</td>
<td>Reflection Journal</td>
</tr>
<tr>
<td>Verbal Persuasion was not influential</td>
<td>Peers did not impact other’s level of motivation towards instructional changes.</td>
<td>10 Total Comments</td>
<td>Reflection Journal</td>
</tr>
</tbody>
</table>

* see Appendix K for axial coding of Research Question 3 Verbal Persuasion
Verbal Disposition, the first major theme, described the teachers’ perception of verbal tone during the JEPD sessions. Two classifications emerged to identify the different tones teachers experienced: Professional and Informal. The verbal dispositions of the discussions were important to note for it reflected a positive, save environment for teachers to have meaningful conversations about their instructional practices. As a result, verbal persuasion was not seen as an aggressive attempt to change the current instructional practices of teachers. The following sections provide more details about each of those subcategories.

Professional. The first classification, Professional, represented a tone that was respectful, collaborative, and constructive. Teachers identified respectful as listening to each other, giving each teacher a chance to share, and incorporating good communication skills. For example, Morgan began by saying, “I think everyone was professional with each other. They did a good job of listening” (Interview, Dream Team). Laura extended Morgan’s thoughts by explaining, “Everyone had a chance to voice their opinion” (Party Planners). Given all teachers were invited to share ideas, Suzy noted that teachers “were respectful in listening and communicated well with one another. People were very collaborative and considerate of each other’s opinions” (Interview, Dream Team). Kendall expanded on Suzy’s thoughts by saying, “I thought everyone was very professional towards each other and collaborative. I never felt like anyone’s ideas were not being accepted or not being taken seriously or anything like that” (Interview, Dream Team). Along with collaboration, the opportunity to brainstorm made the verbal interactions constructive. Teachers thrived on the opportunity to share ideas and transform an idea of interest into an action they all believed in and wanted to apply. This was best captured by Bella when she
described verbal interactions as “brainstorming out loud, which is kind of cool because you get
to see what everyone is thinking and ask if that works for you or if it doesn’t work” (Interview,
Dream Team). Engaging in conversations that were respectful, collaborative and constructive
established an environment which positively impacted verbal persuasion.

Informal. Informal verbal interactions, the second classification, meant a tone of
communication that was social and inviting. That is, teachers indicated that they experienced a
positive environment that was light and enjoyable. For instance, Laurie simply stated
interactions were “very open and friendly” (Interview, Literacy Gurus). Regan’s thoughts
expanded on what Laurie had added: “We were joking, but serious. We had a good time with our
group” (Interview, Party Planners). Comments taken from other interviews also captured a
friendly and humorous dialogue during verbal interactions. As Heidi indicated, “It was very laid
back and that is why when we left it was good that everyone felt that comfortable that they could
talk like that” (Interview, Literacy Gurus). Creating a relaxing, non-threatening environment
appeared to lower anxiety and allowed the conversation to flow. Sophia captured this point
when she expressed that the interactions were “more like discussions. Generally, everyone was
just sharing their ideas. One person led the discussion, but from there it was just kind of a
conversation” (Interview, Party Planners). This verbal tone appears to have had a positive
influence on teachers’ perceptions of their capabilities, thus incorporating the CTE source of
verbal persuasion.

Verbal Persuasion Was Influential

Verbal Persuasion was Influential, the second major subcategory, described responses
where peers impacted others’ level of motivation towards instruction changes. In the individual
reflection journals, teachers were asked: How influential were your peers on your level of motivation toward instructional changes to meet literacy goals? Three classifications emerged from the data: learning from peers, collaboration, and inspired motivation.

**Learning from peers.** Teachers valued sharing and exchanging instructional ideas to address literacy concerns in the classroom. Responses indicated that providing the opportunity to come together and have meaningful conversations was a welcomed experience. Paula described a benefit of having those types of discussions: “It helps to hear what other teachers are doing to support literacy in their classrooms” (October Reflection Journal, Literacy Gurus). Teachers relied on the JEPD sessions to learn about their peers approach in supporting literacy development. Through sharing instructional approaches, the teachers also learned about the needs of their colleagues. Lola described this point when she explained, “It was helpful to hear what others in each grade level need the lower levels to work on” to assist in building upon students literacy skills (March Reflection Journal, Dream Team). Sharing literacy deficits opened new conversations of educating teachers on the needs of their peers. What’s more, teachers came prepared to share successful practices regarding literacy instruction. For instance, Sadie described the experience as, “My peers have wonderful ideas that they have found to be successful in their classroom” (January Reflection Journal, Party Planners). Shannon added to Sadie’s comments by saying she was “excited to hear what they -- peers -- are doing or have tried doing to meet the needs of their students” (March Reflection Journal, Dream Team). Once teachers engaged in discussions on implemented ideas they served as a starting point for the evolution of greater and more meaningful plans of actions. As Craig stated, “learning about my peers past experiences was very helpful” (March Reflection Journal, Literacy Gurus). Cadence added that everyone was “receptive to adding input and giving feedback on ideas presented”
Sally summarized the JEPD experience well when she described her colleagues as “highly educated people who know so much and are willing to share what they know” (March Reflection Journal, Literacy Gurus). Teachers learned from listening to their peers’ contributions, therefore the CTE source of verbal persuasion was positively influenced.

**Collaborating with peers.** Collaborating with Peers referred to teachers working together towards a common agreed upon goal. Peers engaged each other in meaningful conversations about situated problems of practice. For instance, Lindsey explained this point when she shared, “It was great to bounce ideas off of my peers [during JEPD sessions and] to discuss how things are going in the classroom” (January Reflection Journal, Dream Team). The teachers cherished the time to come together, as a school, and improve instruction for all students. Sabrina described the collaborative experience by saying, “All teachers want to make sure they are teaching the same things and are preparing their students for the following year” (March Reflection Journal, Dream Team). Teachers continued to focus on vertical alignment of literacy skills and content as they moved forward in making changes to instruction. Silvia supported the idea of vertical alignment by saying, “The whole group is very motivated towards getting a literacy program that is consistent grade to grade” (March Reflection Journal, Literacy Gurus). The collaborative experience introduced the teachers to a new way of professional learning. Shannon explained this thought when she shared that she “enjoyed listening and learning during the thought provoking sessions that come from collaborating with my peers more than a lecture that was disconnected from the needs in the classroom” (January Reflection Journal, Dream Team). The JEPD approach was well received by teachers and acknowledgment was made of the positive outcomes that collaborative work supports. Suzy supported this thought by stating,
“You can tell a difference when we work together” (March Reflection Journal). Teachers enjoyed the opportunity to have group discussions on problems of practice and their professional learning was influenced as a result of their peers’ verbal persuasion.

**Inspired motivation.** Inspired motivation referred to how teachers were encouraged by their peers to implement instructional changes. Teachers sensed the positive energy that radiated from the other teachers. For example, Craig wrote that peers “were positive and energetic which helped me stay motivated” (October Reflection Journal, Party Planners). The positive, energetic environment inspired teachers to develop new ideas to implement in their classroom. In support, Laura elaborated that during the JEPD sessions her peers “motivated me to come up with ideas to incorporate into my classroom” (October Reflection Journal, Party Planners). Positive verbal energy was contagious and literacy team members extended the positive vibe into grade level team discussions. For instance, Bella described such energy as she, “feels the motivation of them – her peers – and that [the motivation of peers] helps in creating motivation within their grade levels as well” (October Reflection Journal, Dream Team). This idea of motivation and inspiration by peers was best captured by when she wrote “we believe in the same goal and are motivated to move towards that goal; then any amount of work that needs to be done I’m willing to do it” Shannon (October Reflection Journal, Dream Team). These teachers demonstrated that their peers, through verbal persuasion, increased their motivation to make necessary instructional changes.

**Verbal Persuasion Was Not Influential**

Verbal persuasion that was not influential referred to how peers did not impact others’ level of motivation towards instructional changes. There were four reasons why verbal
interactions with peers was not influential. First, classroom instruction was not influenced. For example, Heidi explained, “We did not make any instructional changes so there was no influence” (January Reflection Journal, Literacy Gurus). Second, the group atmosphere for one particular session was repressed. In support of this point Diana wrote “some were just not motivated” (March Reflection Journal, Party Planners). Rose extended Diana’s thoughts by writing, “A number of peers seemed like they were just putting in their required time. There wasn’t a whole lot of enthusiasm for instructional change” (March Reflection Journal, Party Planners). Third, group discussion was off task allowing time to run out before productivity could occur. Silvia cogently explained it this way: “We talked a lot so we did not get much covered” (January Reflection Journal, Literacy Gurus). The fourth and final reason verbal persuasion was not influenced during the JEPD sessions reflected the limited sharing or willingness to receive new ideas. For instance, Laurie wrote that, “Some – not very many – did not want to share nor had nothing to share” (March Reflection Journal, Literacy Gurus). Heather extended Laurie’s thoughts by stating yet another point of view: “They [her peers] were motivating, but I like to bring my own ideas also” (March Reflection Journal, Party Planners). When the verbal interactions of the group were counterproductive verbal persuasion was not influenced during the JEPD sessions.

Summary of Verbal Persuasion

Three subcategories emerged from the data on verbal persuasion: Verbal Disposition, Verbal Persuasion was Influential, and Verbal Persuasion was Not Influential. First, examination into teachers’ perceptions of verbal tone during the JEPD sessions was analyzed and two classifications emerged from the data: professional and informal. Second, the influence of
verbal persuasion was analyzed and three classifications emerged from the data: learning from peers, collaboration, and inspired motivation. Third, verbal persuasion as not an influential source of CTE was explored. When comparing influential comments (n = 47) to non-influential comments (n = 10), verbal persuasion was found to have influenced the development of collective efficacy of elementary teachers through a JEPD approach.

**Affect States**

Affect States include feelings of excitement or anxiety associated with an individual’s or group’s perceptions about their capability or incompetence (Bandura, 1986). The data indicated that affect states were influential in developing CTE through a JEPD approach. Data collection for affect states were gathered through both the reflective journals and interview questions. Two subcategories emerged from the data to explain the implications of affect states on CTE (see Table 4.10).

**Affect States Were Positively Influenced**

Affect States were influenced when those experiences during the JEPD sessions excited teachers or lowered their levels of apprehension. Four classifications emerged when viewing the data through the lens of affect states: Session Experiences, Perceived Value of Collective Approach, JEPD as a Model of Professional Learning, and Overall JEPD Experience.

*Session experiences that were influential.* Data collected for the first classification were through the reflection journals completed at the conclusion of each JEPD session. Teachers were asked to share their thoughts on how they felt upon leaving the JEPD sessions. Feelings of accomplishment and motivation received the most recognition. Further examination revealed
three specific actions that contributed to the teachers’ feelings of accomplishment: production of an end product, achievement of objectives, and productive use of time (see Table 4.11).

Table 4.10
Influence of Affect States

<table>
<thead>
<tr>
<th>Subcategory*</th>
<th>Definition</th>
<th># of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affect States were Positively Influenced</strong></td>
<td>Experiences that excited the teachers.</td>
<td>74 Total Comments</td>
</tr>
<tr>
<td>Session Experiences that were Influential</td>
<td>Experiences that occurred during the JEPD session that positively influenced the teachers</td>
<td>37</td>
</tr>
<tr>
<td>Perceived Value of Collective Approach</td>
<td>Teachers’ opinions on working collaboratively towards a goal</td>
<td>16</td>
</tr>
<tr>
<td>JEPD as a Model for Professional Learning</td>
<td>Teachers’ views on a non-workshop approach to professional learning</td>
<td>8</td>
</tr>
<tr>
<td>Overall JEPD Experience</td>
<td>Teachers’ perceptions on a JEPD approach to professional learning</td>
<td>13</td>
</tr>
<tr>
<td><strong>Affect States were Negatively Influenced</strong></td>
<td>Experiences that raised the anxiety of teachers.</td>
<td>13 Total Comments</td>
</tr>
<tr>
<td>Session Experiences that were not Influential</td>
<td>Experiences that occurred during the JEPD sessions that negatively influenced the teachers</td>
<td>13</td>
</tr>
</tbody>
</table>

* see Appendix L for axial coding of Research Question 3 Affect States

Affect States Were Positively Influenced

Affect States were influenced when those experiences during the JEPD sessions excited teachers or lowered their levels of apprehension. Four classifications emerged when viewing the data through the lens of affect states: Session Experiences, Perceived Value of Collective Approach, JEPD as a Model of Professional Learning, and Overall JEPD Experience.
Session experiences that were influential. Data collected for the first classification were through the reflection journals completed at the conclusion of each JEPD session. Teachers were asked to share their thoughts on how they felt upon leaving the JEPD sessions. Feelings of accomplishment and motivation received the most recognition. Further examination revealed three specific actions that contributed to the teachers’ feelings of accomplishment: production of an end product, achievement of objectives, and productive use of time (see Table 4.11).

Table 4.11

JEPD Session Experiences that Influenced Affect States

<table>
<thead>
<tr>
<th>Classification</th>
<th>Subclassification</th>
<th># of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accomplished</td>
<td>Production of an End Product</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Achievement of Objectives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Productive Use of Time</td>
<td>3</td>
</tr>
<tr>
<td>Motivated</td>
<td></td>
<td>8 Total Comments</td>
</tr>
</tbody>
</table>

The first classification of accomplishment was present in all three literacy teams. For instance, Bella responded, “I felt like we got a lot accomplished! We discussed as a team and no one took complete dictatorship” (October Reflection Journal, Dream Team). The Party Planners also experienced feelings of accomplishment. For example, Rose expressed this feeling when she shared, “It felt like we got a lot accomplished” (October Reflection Journal, Party Planners). The Literacy Gurus likewise accomplished their goals. Regan indicated, “The group got a lot done and we felt pretty successful” (October Reflection Journal, Party Planners). When delving
further into this classification, three sub-classifications emerged to explain as to why the teachers felt accomplished: production of an end product, achievement of objectives, and productive use of time.

The first sub-classification, production of an end product (n = 11), was viewed as a major contributor to the feelings of accomplishment. For example, Sophia shared that the Party Planners had developed a plan or had a, “a good basis of where we want things to go” (October Reflection Journal, Party Planners). Laura expanded upon Sophia’s thought by indicating that the Party Planners wanted to “provide students opportunities to read and do other literacy activities outside of the regular school day” (January Reflection Journal, Party Planners). Sadie identified these opportunities when sharing, “I am looking forward to our Reading Night and Literacy Day” (January Reflection Journal, Party Planners). The Dream Team contributed to the JEPD end products with a common literacy language and a gradual release model for teaching reading comprehension strategies. Lindsey described one of their end products when she wrote, “It was nice to know that we have agreed on a common language for editing student work” (October Reflection Journal, Dream Team). Sabrina extended Lindsey’s explanation by explaining, “We had finished the map [the gradual release model for teaching reading comprehension strategies] and discussed its importance” (January Reflection Journal, Dream Team). The JEPD sessions proved to serve a purpose of providing teachers the opportunity to collaborate and formulate end products focusing on their goal, which lead to feelings of accomplishment.

The second sub-classification, achievement of objectives (n = 4), also contributed to teachers’ feelings of accomplishment. Objectives were established for each JEPD session by the chairs/co-chairs of each literacy team and shared with the teachers prior to the JEPD sessions.
Teachers appreciated having direction through an objective to guide their work. Laurie explained this feeling: “I felt accomplished because we were able to accomplish our objective and we did a good job doing it” (March Reflection Journal, Literacy Gurus). Teachers were pleased with their progress and more so when all established objectives were met. Laura confirmed the achievement of all objectives when she said, “We did everything we needed to” (March Reflection Journal, Party Planners). Similarly, Heidi wrote that we [Literacy Gurus] “completed what was asked of us” (March Reflection Journal, Literacy Gurus). Establishing and focusing on an objective led teachers to meet their goal by sharing responsibilities.

The third and final sub-classification, productive use of time (n = 3), contributed to the achievement of objectives and ultimately an end product. Evidence of this was found when Lola wrote, “We made good use of our time and were able to get a start on our goal” (October Reflection Journal, Dream Team). Since the goals were directly related to current problems of practice, the teachers were inspired to begin addressing such concerns. Shannon supported this claim by saying, “Time was used productively and it was directly related to my classroom curriculum” (October Reflection Journal, Dream Team). Effective use of time not only benefitted individual classroom needs, but also brought the school together as a learning community. For example, Cadence wrote “We used our time wisely and planned exciting events that will benefit all students” (January Reflection Journal, Party Planners). The first classification of JEPD Session Experiences was the fact that teachers reported feelings of accomplishment when leaving the JEPD sessions. Actions that led to the feelings of accomplishment encompassed the production of an end product achievement of objectives, and productive use of time.
Motivation was the second and final classification of JEPD Session Experiences that were influential. Teachers were inspired when realizing that they all had the same ELA concerns and the same desire to address such concern. For example, Laurie explained, “It was good knowing that we have a group of people feeling the same way about our educational deficits and wanting to work together to fix it” (October Reflection Journal, Literacy Gurus). Craig extended Laurie’s thoughts about working collaboratively that lead to him “feeling motivated. They [peers] offered information which made me feel more prepared with teaching literacy” (January Reflection Journal, Literacy Gurus). While these teachers made direct reference to the role their colleagues played on their feelings of motivation, others commented on the aura of motivation as they left the JEPD sessions. For instance, Suzy exclaimed that she left the JEPD session feeling, “motivated to make changes in my teaching” (January Reflection Journal, Dream Team). Similarly, Heather wrote that she departed the session feeling, “motivated to make these events [school wide literacy events] successful” and “looking forward to planning activities for next year” (January & March Reflection Journals, Party Planners). Feelings of motivation and accomplishment were the themes as to why teachers’ experienced lower levels of anxiety towards instructional change. Impacting an individual’s or groups’ emotional response towards perceived capabilities implies that the CTE source of affect states was present during the JEPD sessions.

**Perceived value of a collective approach.** The second category, Perceived Value of a Collective Approach, described teachers’ opinions about working collaboratively towards a goal. At the end of the study, one interview question sought information about the teachers’ perceived value of using a collective approach: What are your thoughts on working collectively as a group
towards a specified common goal? Two sub-classifications emerged from that question: collaborative work and information gained (see Table 4.12).

Table 4.12
Perceived Value of Collective Approach Interview Responses

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Definition</th>
<th># of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Value of Collective Approach</td>
<td>Teachers opinions on working collaboratively towards a goal</td>
<td>16 Total Comments</td>
</tr>
<tr>
<td>Collaborative Work</td>
<td>Working as group on a goal.</td>
<td>9</td>
</tr>
<tr>
<td>Information Gained</td>
<td>Knowledge acquired from peers.</td>
<td>7</td>
</tr>
</tbody>
</table>

The first classification of collaborative work refers to working as a group on a goal. Prior to this study’s experience, these teachers had not been given the opportunity to collaborate towards a common goal. Teachers were provided with a whole school goal, but were asked to accomplish that goal independently within their respective classrooms. Now having had the opportunity to work collaboratively, teachers shared that through working together they were able to support each other’s work, choose from a pool of ideas, and have meaningful conversations about the work being done within their classrooms. For example, Paula explained that she found value in “working with other teachers throughout the building to discuss what each grade level needed help with and where we should go” (Interview, Literacy Gurus). Laura felt the same way and explained that it “was helpful to work with other staff members in a different grade level to kind of figure out what we could help as Kindergarten teachers in first grade, second grade and so on” (Interview, Dream Team). Not only did the teachers want to help
each other in their instructional practices, but working collectively provided a greater number of ideas to incorporate within their classrooms. For instance, Rose summarized it best when she said, “In a collective approach the pool of ideas was greater than if we were alone” (Interview, Party Planners). Diana added to Rose’s thoughts by saying she valued, “having all those different minds and different grade levels coming together to form different ideas” (Interview, Party Planners). Bella also commented on the experience of having many ideas to choose from: “It was nice working collaboratively with everybody to see their ideas and how I can branch out from them” (Interview, Dream Team). Supporting the work of their colleagues, and creating a vast selection of ideas could not have come if it were not for the opportunity for meaningful conversations. Silvia expressed this point well: “What was most valuable was just being able to get together as a group and meeting to talk about all of our concerns and what we would like to see done and the goals that we made for the school and the student” (Interview, Literacy Gurus).

As a result of the JEPD sessions, teachers found substantial value in the collaborative conversations that occurred during this time. Working together to achieve the same goal lessened the work load which in turn lessened the anxiety teachers experienced about their capability to achieve goals.

The second classification, information gained, referred to the knowledge teachers acquired from their peers. Through meeting collectively, the teachers found value in becoming informed about the skill components and progressions through the grade levels. For example, Kendall explained that it was “valuable to hear others. To see where they are starting at in Kindergarten and then where they need to be when they come to fourth grade” (Interview, Dream Team). Laurie concurred with Kendall’s thoughts by describing how valuable it was to “find out what the younger grades teach and how they grow to use or don’t grow to use those
skills” (Interview, Literacy Gurus). While collective conversations supported discussions on grade level skills progression, they also presented the opportunity to hear different perspectives on the same skill through the lens of various grades. In support, Morgan also said it was valuable to be “able to meet and hear different perspectives of different grade levels on the same topic” (Interview, Dream Team). Through collective conversations teachers appreciated working collaboratively towards a whole school literacy goal. In addition, teachers became more informed on targeted skills for each grade level and how those skills progress from grade to grade. Acquiring a deeper understanding from peers assisted teachers in creating a comprehensive action plan to achieve a set literacy goal. Sharing knowledge made effective use of time which impacted the CTE source of affect states by lowering teacher’s anxiety in their abilities to achieve an extensive goal.

JE PD as a model for professional learning. The third subcategory, JEPD as a Model of Professional Learning, referred to teachers’ views on a non-workshop approach to professional learning. At the conclusion of the study, one interview question was asked to gain the teachers’ perceptions about using the JEPD as a model for professional learning: How did participating in this study impact your ideas on professional learning? Two sub-classifications emerged to describe the teachers’ views: great resource and a way to support each (see Table 4.13).
The first classification, great resource, described how teachers appreciated and viewed their colleagues as a source for information. Kendall simply stated, “They [colleagues] are a great resource to have” (Interview, Dream Team). Similar to Kendall, Paige explained, “When you’re working together you’re going to learn things from other people” (Interview, Dream Team). New teachers, in particular, valued the knowledge and experiences their veteran peers shared during the JEPD sessions. For instance, Craig elaborated on this point when he said, “Being a new teacher, I want some input from different teachers, new perspectives. Even if it’s not what I’m going to do. At least it gives me multiple ideas” (Interview, Literacy Gurus). Bella extended Craig’s thoughts when she shared, “Working with my peers was beneficial because I’m so new and a lot of the other teachers have been here and worked with a lot of curricula, and different supplementary things” (Interview, Dream Team). Collectively, the teachers agreed that they found great value in a JEPD approach because it provided the chance for them to interact and learn from their peers.
The second classification discussed how the JEPD model helped teachers support each other. Teachers’ viewed their colleagues as partners in working towards the same goal. While the building leadership established the overarching literacy goal for the school, each literacy team had to deconstruct and identify their role in achieving the goal. Lindsey for instance, succinctly stated, “It was good to have one goal, and we are supporting each other” (Interview, Dream Team). One way the teachers created this support was through sharing the workload. This was best explained by Silvia when she cogently said, “You have to work as a group. If you have a common goal, the more people involved the more you would see getting done” (Interview, Literacy Gurus). Additional help towards a common goal opened the opportunity for community approach to problem solving. For example, Paula described this feeling of support: “When working together it felt like you knew where you were headed, and we were all on the same page” (Interview, Literacy Gurus). Regan summarized the concept of working collaboratively when she said, “It was great talking about the ideas to get a final decision. It [collaborative work] takes the stress off of one or two individuals” (Interview, Literacy Gurus). Teachers enjoyed collaborative work because it encouraged a sense of community and support lowering levels of anxiety towards performance. Thus, affect states was positively influenced.

Overall JEPD experience. The fourth and final subcategory, Overall JEPD Experience, described teachers’ perceptions on a JEPD approach to professional learning. Three classifications emerged from the interview data: encouraged collaboration among teachers, change in atmosphere, and new outlook on professional development (see Table 4.14).
Table 4.14

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Definition</th>
<th># of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall JEPD Experience</td>
<td>Teachers’ perceptions on a JEPD approach to professional learning</td>
<td>13 Total Comments</td>
</tr>
<tr>
<td>Encouraged Collaboration Among Teachers</td>
<td>Teachers appreciated working with colleagues within their own school</td>
<td>6</td>
</tr>
<tr>
<td>Change in Atmosphere</td>
<td>Experience encouraged a new attitudes and feelings</td>
<td>4</td>
</tr>
<tr>
<td>New Outlook on Professional Development</td>
<td>Teachers were introduced to an alternate approach to learning</td>
<td>3</td>
</tr>
</tbody>
</table>

The first classification, encouraged collaboration among teachers, described the appreciation teachers felt towards the chance to work with their colleagues within their own school building. Until this study, the teachers had only experienced a workshop approach to professional development. While some professional development sessions were within their school, they were still led by one individual where the teachers simply sat and listened. The JEPD approach to professional learning established three principles for the teachers. The first principle was the opportunity for teachers to engage in meaningful conversations with each other. For instance, Bella shared, “I liked how we met as a school because I go to those outside things and I don’t really get to meet with teachers I work with every day” (Interview Dream Team). The meaningful conversations encouraged teachers to become active participants in their professional learning. For example, Craig relayed, “It [JEPD sessions] made me more active. It almost forced me to get new ideas because I am listening to other people. It made me learn” (Interview, Literacy Gurus). Secondly, the JEPD sessions established an opportunity that
encouraged teachers to learn from each other. Diana explained this point with this insightful comment: “It [JEPD sessions] was nice to get ideas from each other. I think that a lot of us forget that we are each other’s best resource” (Interview, Literacy Gurus). Thirdly, the JEPD session established an opportunity for teachers to address situated problems of practice they faced each day in the classroom. In support of this point, Laura explained, “I liked the idea of being related to our classroom. Sitting in a seminar might not relate exactly to you” (Interview, Party Planners). The JEPD approached provided teachers time to collaborate bringing about meaningful conversations where teachers learned from each other and worked to solve current problems of practice.

The second classification, change in atmosphere, described the new attitudes and feelings teachers experienced since participating in a JEPD approach to professional learning. The professional development sessions at the school were usually led by the principal with no input from teachers on their needs. Not only did teachers have input with the JEPD approach, but also they lead sessions thereby becoming active participants in their own learning. This was best captured by Heidi when she said, “It [JEPD] just brought a whole new different attitude and feeling, or aura, to our school” (Interview, Literacy Gurus). Paula extended Heidi’s thoughts with, “I thought that it [JEPD] felt good to work with other teachers instead of always just being told by administrators here’s this or do this” (Interview, Literacy Gurus). Silvia supported this change in the environment by declaring, “I think we need more time for teacher led things like this” (Interview, Literacy Gurus). Transitioning from professional learning that was directed by school administration to a teacher led approach positively impacted the CTE source of affect states by building autonomy in the teachers.
The third and final classification, new outlook, described teacher’s experiences to an alternate approach to professional learning. Until this study, teachers were unaware that other approaches existed. This was best voiced by Kendall when she said, “I have a new outlook on professional learning. That it doesn’t always have to be the same professional learning group where we sit and have someone lecturing us” (Interview, Dream Team). Regan’s comment dovetailed with that of Kendall: “This [JEPD] opened my mind to different ideas and not just sitting there and listening to an entire presentation” (Interview, Party Planners). The teachers were eager to embrace their own professional learning and apply their learning to situated problems of practice in their classrooms. In support of this point, Silvia stated, “I would rather do what we did this year, meeting as a group and learning together, than doing our own thing or having a presenter” (Interview, Literacy Gurus). The teachers indicated that they were open to new way of professional learning where they could directly connect their learning to the specific curricular or instructional needs to their classroom. Having professional learning directed towards specific needs lowered teachers’ anxiety thus positively impacting the CTE source of affect states.

**Summary of Affect States**

Teachers experienced a positive emotional response to the JEPD approach to professional learning. The individual JEPD sessions left teachers feeling accomplished and motivated. Teachers found value in taking a collective approach to meeting the academic needs of students through collaborative work and the information gained from their peers. They willingly embraced the JEPD approach because the sessions served as a great resource for them and allowed them to support one another towards the common goal.
Bandura (1986) explained affect states as the emotional connection (excitement or anxiety) individuals or groups experience when assessing capacity or incapacity to perform a skill. Teachers indicated that the JEPD sessions were positively influential on their perception of their capabilities as a learning community to impact change. Also positively influenced were the teachers’ perceptions on professional learning formats. Until this study, the teachers had been dominantly exposed to a workshop approach. Now having experienced a collective approach teachers are seeking more opportunities to invest in their professional learning through a collaborative learning environment. Clearly, the teachers made an emotional connection to the JEPD approach thus activating the CTE source of affect states. Ultimately, the emotional connection teachers’ made was one of excitement and not of anxiety; therefore affect states played a positive role in the development of collective efficacy of elementary teachers through a JEPD approach.

Chapter Summary

The four primary sources of efficacy, mastery experience, vicarious experience, verbal persuasion, and effect states all played a role in the development of collective efficacy of elementary teachers through a JEPD approach to professional learning. Mastery experience was influenced by the fluidity of the JEPD sessions, the collaboration among peers, the content discussed in the JEPD sessions, and the leadership provided by colleagues. Vicarious experience was influenced because instructional and curricular changes were decided upon during the JEPD sessions. Through verbal persuasion of peers, teachers learned from each other by engaging in collaborative conversations leaving the JEPD sessions motivated for change. Positive emotional affect states were employed when teachers’ experienced a positive emotional connection upon
realization that as a group they were capable of implementing and sustaining a whole-school change. A summary of findings, implications for practice, and recommendation for future research are to follow in Chapter 5.
CHAPTER 5

DISCUSSION OF FINDINGS

This chapter presents a discussion of the findings, beginning with the three major outcomes of the study and how they support, refute, and add to past research. Then, connections between the findings and the theoretical framework are examined. Limitations, implications for practitioners, and recommendations for future research conclude the chapter.

Major Findings

This mixed-method study is a step forward in adding a qualitative dimension to the CTE research field. Past researchers have depended on quantitative approaches to identify the significance of CTE in education (Goddard, 2001, 2002; Goddard et al., 2007; Goddard et al., 2000, 2004; Tschannen-Moran & Barr, 2004; Goddard & Skria, 2006). For example, Goddard et al. (2000) initially used quantitative methodology to establish an operative measurement tool of CTE, and utilized the tool to positively correlate student achievement in reading and math to CTE. Then, in their 2001 study, Goddard et al. continued to use quantitative research strategies to positively and significantly relate CTE to differences among schools in student achievement. Goddard (2002) advanced the development of a 12-item Likert-type measurement of collective efficacy from the initial tool used in Goddard et al.’s (2000) study. Tschannen-Moran and Barr (2004) further refined the 12-item Likert-type measurement tool in their study and measured the correlation between CTE and student achievement. It was in Goddard et al.’s (2004) study that
researchers began to recognize the need for a qualitative component to deepen the understanding of how perceptions in CTE can be changed to impact organizational culture. While classified as a mixed-method design, this study was heavy in qualitative data in an effort to provide greater insight into the construct of CTE. Therefore, the results of this study revealed three major findings that extend the understanding of how CTE can influence and strengthen organizational culture through a JEPD model of professional learning.

1. The JEPD model of professional learning potentially influenced the development of CTE.
2. The construct of human agency potentially contributed to JEPD influencing the development of CTE (triadic reciprocity framework).
3. Meaningful conversations about situated learning in authentic problems of practice supported in a JEPD approach potentially contributed to the development of CTE.

The following paragraphs elaborate on each of three major findings, including connections to past research and supportive comments made by teachers in this study.

The first major finding revealed that a JEPD model of professional learning might influence the development of CTE with the group of teachers studied. A JEPD approach to professional learning is grounded in the day-to-day practices of teachers focusing on identifying and solving immediate problems of practice through collaborative conversations (Darling-Hammond & McLaughlin, 1995, 2011; Hawley & Valli, 1999; Hirsh, 2009; National Staff Development Council, 2010). As such, Raphael et al. (2014) identified that building capacity collectively leads to long-term sustainable school improvements through the professional development of teachers. Goddard et al., (2004) recommended the need to attain a better understanding of CTE as a means to improve organizational culture. This study did just that;
CTE can be potentially strengthened through JEPD contributing to the improvement of organizational culture. This was evidenced by the responses teachers made related to the four sources of collective efficacy: mastery experience, vicarious experience, verbal persuasion, and affect states. Teachers indicated that they acquired knowledge and made behavioral changes as a result of the JEPD sessions (mastery experience). For instance, Sally shared that the JEPD sessions “increased my knowledge in student growth goals and Webb’s Depth of Knowledge” while Lola expressed the JEPD sessions provided a “clear idea on a purpose for student achievement.” The teacher leaders of each literacy team modeled and supported a collaborative environment sharing their own experiences and achievement in the face of curricular and instructional changes (vicarious experience). Another example included Kendall who noted that the leaders allowed “the discussions [to] bounce around the room as problem solving tactics were utilized to address the current curriculum needs of our school.” Meaningful and influential conversations about current problems of practice dominated the JEPD session (verbal persuasion). As Felicia observed: “This group is highly motivated to provide the best instruction for the students. We shared better resources to incorporate in the classroom.” Teachers experienced feelings of motivation, excitement, and lowered levels of anxiety while participating in the JEPD sessions (affect states).

Goddard et al. (2004) indicated in their study that a deeper understanding of perceived collective efficacy and group-level extension of its social cognitive underpinnings remained. That is, studies have not applied a qualitative methodology to better understand how CTE is developed at the group-level or if the four sources of efficacy are applicable at the group-level. The results of this study found that the sources of efficacy can be applied at the group level to change the perceptions of a group to strengthen organizational culture. In this case, this school
participated in a model of professional development that fostered an environment that empowered teachers to make necessary curricular or instructional changes to best meet the needs of students. As a result, teachers collaborated or shared the work load to achieve such changes leading to a growth in CTE as indicated by survey results at the conclusion of the study.

The second major finding of this study identified human and organizational agency as a potential major contributor to a JEPD approach that strengthened CTE. Teachers appreciated having the capacity to make choices and then to impose their choices on classroom practice. For example, Silva explained, “It was great to just have the opportunity for open, honest conversations about our needs.” Heidi extended this thought related to the concept of agency by stating that they “actually worked on things that we can use every day in our classroom.” The social cognitive theory explains human behavior follows a framework identified as triadic reciprocity (Bandura, 1986; Bandura & Cervone, 1983). This study facilitated an environment in which individual agency, proxy agency, and collective agency naturally evolved and stimulated the behavioral responses of the teachers. For example, in the beginning of the study, teachers were able to select the literacy team of their choice (individual agency). In support of being empowered to select teams, Suzy shared “people signed up for where they felt they would be able to benefit the school the most.” An example of proxy agency was noted in Sadie’s comment that “we discussed curriculum which directly relates to the students.” Collective agency was documented in Sally’s subsequent response that the “staff is communicating more with each other about literacy based goals.” These pithy but purposeful examples operationalize how teachers valued the opportunity to exercise choice on an individual and collective level.

The third major finding identified meaningful conversations about situated learning in authentic problems of practice as a potential key contributor of JEPD influencing CTE. For
instance, Kendall shared that they “worked together to generate ideas.” Felicia extended Kendall’s thoughts by saying “through discussion we provided better resources for the students that will have a positive effect on student achievement.” Vygotsky’s (1978) underpinnings in his original work of the sociocultural theory indicated that he believed that interactions with persons in their environment stimulated developmental processes and fostered cognitive growth (Schunk, 2012). Harré (1983) extended Vygotsky’s theory of the Zone of Proximal Development by constructing and introducing the Vygotsky space. This very notion was exemplified in the study. One such example included Craig who alluded to movement through the Vygotsky space when he shared, “seeing other teachers and what they used in the classrooms, how they organized things gave me ideas on how I could make those things my own.” Darla added to Craig’s thoughts by explaining, “meeting with our literacy teams has allowed me to get ideas and collaborate more with my coworkers.” Savannah recorded her movement through the Vygotsky space by sharing, “I have a better understanding of what close reading is and what symbols to use.” These examples and other similar findings from the study reveal how teachers capitalized on the opportunity to collect information through a group setting and transform the knowledge into ones’ own thought and application.

There were three major findings to this study that explored the influence a JEPD approach had on the development of collective efficacy of elementary teachers. The following section will examine the results of this study through the lens of the study’s theoretical framework.
Discussion of Theoretical Framework

Social Cognitive Theory

CTE is embedded in Bandura’s (1982, 1986, 2001) social cognitive theory of behavioral change. Triadic reciprocity is at the foundational level of social cognitive theory, which means cognitive, behavioral, and environmental influences impact an individual’s behavioral responses. Bandura (1982, 1986, 1997) identified that at the core of the social cognitive theory are the efficacy beliefs individuals have about themselves and their capacity to complete a task; however, the construct of self-efficacy and its sources can also be applied to a group, creating collective efficacy (Bandura, 1997). This component of Bandura’s theory was evident in the second major finding involving human and organizational agency in that the teachers valued the opportunity to discuss daily classroom challenges in a collaborative environment that ultimately promoted curricular and instructional changes. Evidence of the four sources of efficacy (mastery experience, vicarious experience, verbal persuasion, and affect states) emerged through their collaborative conversations.

Research has also documented that collective efficacy beliefs influence aspects of an organization’s operative culture (Goddard et al., 2004). In this study, the teachers identified feelings of accomplishment, motivation, and empowerment as a result of participating in a study which appeared to promote the development of CTE. Each literacy team met the overarching goal set by the building leadership team at the beginning of the study. Many of the teachers reported changes that occurred within their classroom as a result of participating in the JEPD sessions, offering an understanding of the plausible outcomes of CTE resulting in improvement of an organizational culture. This is one of the first studies that focused directly on the behaviors
of elementary teachers that resulted in further development of CTE. Understanding the impact of such behaviors can assist in advancing an organization’s operative culture.

**Sociocultural Theory**

A JEPD approach to the professional learning of teachers assumes its theoretical basis in the underpinnings of Vygotsky’s (1978) sociocultural theory. In the JEPD sessions, knowledge was co-constructed among two or more teachers, supporting Vygotsky’s notion that learning emerges from the interactions with others and the environment surrounding the learner.

Through the social interactions with others, these teachers initiated self-regulatory tendencies to collect knowledge (Meece, 2002; Raphael et al., 2014; Vygotsky, 1978). Self-regulation occurred through the development of an internal representation of the thoughts shared and actions observed during the JEPD sessions. This supported Harré’s (2002) discussion of movement through the Vygotsky space that represents the learning process that occurs within a sociocultural lens (Raphael et al., 2014). For movement to occur among the quadrants of the Vygotsky space, five principles need to be present: agency, situated, dialogue, systemic, and sustained. Figure 5.1, generated by the researcher for the purpose of this study, was previously presented in Chapter 1; however, the figure has been updated to include a more detailed connection among these five principles and the current study of the influences JEPD had on the development of CTE. The updates are noted in red and italics.
The first principal identified the importance of teacher agency in a sociocultural approach to professional development. Teacher agency occurred by engaging teachers in learning that resulted in their ownership, agency, and shared understanding of the process and products of the professional development (Au, 2013; Johnston-Parsons, 2012). In this study, teachers were empowered in such ways as determining the overarching literacy goals and establishing objectives for each JEPD session. The second principal, situationally appropriate, addressed...
meaningful problems of practice (Raphael, et al., 2014). This meant that the JEPD sessions focused on immediate concerns in the instructional practices within the classroom. These concerns were identified by the teachers through analysis of student data. Objectives for JEPD sessions addressed immediate concerns identified in the data resulting in teachers applying newly acquired knowledge directly into day-to-day instructional practices. The third principal, dialogical practices, emphasized the opportunity for meaningful conversations (Raphael, et al.). JEPD sessions were structured in such a way that an open discussion format was promoted and encouraged. The chairs and co-chairs of each literacy team facilitated the flow of the sessions and altered the agendas as needed to allow for these types of conversations to occur. The fourth principal, systemic view, focused on the teachers having the same goals (Raphael, et al.). In this study, teachers coordinated their efforts to collaborate and achieve the common goal of improving literacy scores of their students. The fifth and final principal, sustained across time, implies that professional development must be an ongoing process extended over a period of time (Raphael, et al.) In the case of this study, teachers completed cycles of plan, do, review that extended over the course of a school year. This process demonstrated sociocultural characteristics of systemic view by creating a common purpose and shared responsibility for reaching established goals. In addition, the plan, do, review, cycle involved the coordination of multiple activity settings and individuals providing the opportunity for dialogue to flow from public and social to private and individual (Raphael et al., 2014). This flow of dialogue supports Vygotsky’s foundational components in the sociocultural theory.

The remaining points in Vygotsky’ (1978) sociocultural theory revolved around the critical tool of language. Vygotsky identified that human development occurs through a cultural transmission tool, referring to language or symbols shared. The critical component of this entire
study was teachers engaging in conversations. The teacher conversations promoted the development of goals, problem-solving techniques to reach those goals, and finally, evaluation of the goals to determine the next course of action. For example, Darla discussed how all the literacy leaders “met before each session to establish goals” or the next step towards the goal. In addition, Bella described the verbal interactions like “brainstorming out loud” and Lindsey described them as “constructive.” These teachers confirmed the importance of language as a tool for communicating towards a shared goal. The sociocultural theory is based on the idea of conveying ideas through language in which an individual internalizes information, transforms it in the context of individuals’ needs and uses and then shares it in ways that can be taken up by others (Gallucci, 2008).

Limitations

Seven factors in this study limited the extent to which the results can be generalized to the population outside of the study’s context. The first three relate to the study’s environment, while the last four may have impacted the results of the teachers’ scores on the Collective Teacher Efficacy Belief Scale (CTBE).

First, the study took place in a rural community in which the elementary school district had experienced rapid growth in enrollment and staffing over a period of ten years. Positive and negative environmental issues resulted from the rapid growth as a product of how individual school boards, administrators, and staff adapted to the systematic changes. These contextual factors cannot be exactly duplicated in another setting, thus limiting generalization to a population outside of the study’s context (Mertens, 2015).
Second, the study can be seen as a disruption of normal activities, as it addressed a change in the perception of and action in a school’s culture. While a new approach might produce positive results simply because it is different, the inverse is possible as well. A new approach may not be effective (at least initially) because it causes a disruption in normal activities (Merterns, 2015).

Third, the researcher participated in the study. The researcher’s role was as a creator as well as a facilitator of the JEPD model. She served as a coach for the JEPD teacher-leadership team and a chair for one of the literacy teams as well as participated in the discussions as a classroom teacher. As a participant, it is important to note the bias the researcher may have brought to the study (Merriam, 2009). It is also important to note that the participants may have provided answers they believed the researcher wanted to hear due to pre-existing relationship between researcher and participants.

The fourth limitation lies in the inexperience of teachers with a JEPD model of professional learning. Prior to this study, the teachers’ only experience with professional learning was through the workshop model; therefore, the teachers began the study with a certain level of anxiety about not knowing what to expect in a JEPD approach. Time moving toward collaborative and meaningful conversations regarding the JEPD sessions’ goals was lost due to teachers engaging in more of an observation role rather than a participatory role. Therefore, the pre-survey results may have been skewed toward a lower perception of CTE due to the teachers’ anxieties about experiencing a new format of professional learning.

The fifth limitation involves the insufficient support from administration. The building principal was not in support of the study being conducted within his building, and as a result, the researcher was not able to prepare the teachers for the JEPD approach to professional learning.
Additionally, the principal did not observe any of the JEPD sessions nor did he provide insightful information when inquiries were made about the district’s vision. The transition of leadership in the assistant superintendent’s position also provided some challenges during the JEPD sessions. This study took place during the first year of employment for the new assistant superintendent. Although it is important to mention that he was a significant supporter of the study, the limitations of his knowledge to past curricular and instructional practices hindered some forward moment in the suggested changes resulting from the JEPD session discussions. The insufficient level of support from the building and district administrators may have impacted the teachers’ agency to, and perception of, implementing change. Their perceptions of their agency could have been reflected in the post-CTEBS survey, ultimately lowering the teachers’ perceived CTE level at the conclusion of the study.

The sixth limitation acknowledges that the participants in the study were all volunteers. Since the teachers were willing to engage in a different approach to their professional development, they may have entered into the study with a certain level of bias toward the JEPD approach. This bias could have positively impacted the CTEBS post-survey providing a skewed outcome to the study.

The seventh and final limitation noted in this study relates to the generalizability of the results. The number of study participants (n = 31) who completed the pre- and post-CTEBS survey is an acceptable size for quantitative measures; however, when determining the level of CTE, the aggregated means were not calculated by the number of participants. The measurement of CTE was calculated by the aggregated means of each question in the 12-item CTEBS survey. Therefore, the sample size when calculating the paired t test and Cohen’s effect size value was a
smaller magnitude (n = 12), and as a result, the same sizes must be taken into consideration, thus limiting the generalizability of the results to the larger population.

Recommendations

This section highlights the implications and recommendations in light of this study’s findings. Implications of findings to the larger field of educational professional development are discussed. Proposed recommendations to the field of educational professional development and future research are also presented.

Implications for Educational Professional Development

Based on this study’s findings, there is one implication that can advance the conceptual outline of educational professional development. That is, a sociocultural approach to the professional development of teachers (JEPD) could be one way to further understand the value of CTE and facilitate its development. Under the umbrella of a sociocultural approach there were four specific characteristics that emerged throughout the JEPD approach that have implications for the educational professional development community: teacher agency, situated problems of practice, dialogical, and systemic approach.

Sociocultural Approach to Professional Development of CTE

A sociocultural approach to the professional development of teachers incorporates five principles that underlie and support successful movement among the Vygotsky space (Raphael et al, 2014). Four of these principles emerged as significant factors in the influence of CTE levels: teacher agency, situated problems of practice, dialogue, and systemic. Donohoo (2017) indicates
that these same four principles in addition to one more serve as enabling conditions that foster the development of CTE.

Teacher agency. Teachers believe that through their actions they can influence their students’ learning; however, having the power to make decisions necessary to effect improvement is not always the circumstance (Raphael et al., 2014). In this study, teachers were given agency to identify the overarching literacy goals, determine the JEPD session objectives, and make changes to improve their students’ learning.

When the study was initiated, those teachers who volunteered to be literacy team chairs and co-chairs assembled to analyze the student data recently collected from the required fall district testing. The first step taken was to identify the content area in most need of improvement. As a leadership team (i.e., chairs/co-chairs), a decision was made to address deficits in the content area of literacy. From there the sub-categories of literacy that were tested were further analyzed, and the leadership team deconstructed the information into specific skills that are taught in the classroom. With this knowledge, the leadership team assisted in creating an initial goal for each of the literacy teams as a place to start. At the first JEPD session before breaking out into the literacy teams, the teachers were addressed by the chairs/co-chairs and provided with an understanding of the process taken to reach the initial goal for this first JEPD session. Once the study was underway, the teachers within each of the literacy team contributed to individual session goals that guided the work to be done in reaching the over-arching literacy goal.

Teachers experienced the agency principle in a sociocultural approach to professional development by taking responsibility for identifying areas of curricular deficits and establishing a consensus on an overarching literacy goal as well as individuals JEPD session goals. Goal
consensus and teacher empowerment are two elements that Donohoo (2017) identified as contributors to the increase in CTE. Each principal contributes to mastery experience of teachers and has a positive impact on school culture. Teacher agency is further exercised in the next sociocultural principle for discussion: situated problems of practice.

**Situated problems of practice.** The term situated captures the idea that a sociocultural approach to professional development supports teachers in addressing problems of practice that they identify as important. Meaningful problems of practice include but are not limited to, strategies for implementing Common Core State Standards, or working to create a cohesive vertical alignment of skill sets within an elementary building. In this study, teachers collaborated to address instructional deficits in the area of literacy.

Two of the literacy teams took action to address the deficits that were analyzed in student data in the area of literacy. The Dream Team assumed the responsibility of evaluating current literacy curriculum to identify the deficits in instruction as indicated from student data. This team was already aware of the weak connection to the CCSS their current literacy curriculum contained and worked to rectify this problem until the adoption of a new curriculum took place. Their work focused on adding to the current curriculum and closely monitoring a cohesive connection of skills from one grade level to the next. The Literacy Gurus also used the student data to identify areas in the current literacy curriculum where it was weak in resources. The most significant observation was the lack of resources to adequately expose students to nonfiction text. Thus, the teachers worked to assemble an agreed upon list of close reading marks that would be used in grades Kindergarten to Fourth Grade. The Literacy Gurus further dissected the list of close reading marks identifying which marks that should be taught and mastered at each grade level.
Teachers demonstrated the situated principle in a sociocultural approach to professional development by identifying and addressing important curricular deficits not only seen in the classroom but also noted in student data. Time during the JEPD sessions were spent on meaningful conversations constructing or revising actions plans to address the literacy deficits noted in the student data. The following section will go into further detail on the content of those meaningful conversations.

**Dialogue.** Dialogue was seen as a means for engaging in inquiry. The sociocultural approach to professional development incorporates dialogue as a vehicle in which individuals move through the four quadrants of the Vygotsky space (Raphael, et al., 2014). Moving through the Vygotsky space is important to the process of transformation of new knowledge or concepts into tired, tested, or adopted knowledge or concepts. In this study, teachers were provided the opportunity to participate in meaningful conversations as they assumed increasing responsibility for taking in information, internalizing the information, and sharing their adaptations and transformations of what was once a new concept.

For meaningful conversations to occur time to meet regularly during the instructional day must be established (Donohoo, 2017). In this study, teachers were provided with a block of time during three school improvement days throughout the school year to have meaningful conversations about problems of practice. During these conversations teachers collaborated to construct an agreed upon meaning and understanding to the specific problem of practice identified through student data. It was during this time that new knowledge/concepts on addressing deficits were shared, discussed, internalized by the individual participants, and restated in a transformed way that led to an agreed upon interventional approach. An example of this transformation was demonstrated through the Dream Team. This literacy team reintroduced
a previously used framework for teaching comprehension strategies to students. While this framework was new to some, for others in its current state was not sufficient to address all areas of current deficits. Through discussion, internalization and restatement the team came to modify the suggested framework in such a way that all teachers were pleased with the final product.

Teachers demonstrated the dialogue principle in a sociocultural approach to professional development by actively participating in meaningful conversations of situated problems of practice. Through this experience, teachers were provided with the opportunity for publicly sharing what had been learned, adapted, and transformed in such a matter that other teachers took up new practices (Raphael, et al., 2104).

**Systemic approach.** A systemic approach focuses on the same goals for all stakeholders. In the case of this study, teachers collaborated to build a shared understanding of these goals through a professional development model that delivered a consistent message throughout the initiative (McLaughlin & Talbert, 2006; Talbert, 2009; Wood, 2007). Effective change and an increase in CTE was the result of the collaborative work and coordinating efforts of the teachers to achieve the common goal.

The consistent JEPD message in this study was the overarching literacy goal. As discussed earlier during teacher agency, the consensus of the leadership team based on student data was to address literacy instructional deficits. While the teachers were divided among three literacy teams, the goal of improving literacy instruction was the same. Each literacy team approached this goal from different perspectives to address the students’ deficits in a comprehensive way. What resulted was a school culture dedicated to the growth in literacy instruction for all students.
Teachers demonstrated the systemic principle in a sociocultural approach to professional development by involving all key stakeholders (i.e., all grade level classroom teachers, resource teachers and specialists) from the start. Together, they created a common purpose and shared responsibility for reaching the overarching literacy goal. The teachers achieved individual literacy team goals through multiple coordinated activity settings, ultimately reaching the overarching literacy goal and increased CTE levels as a result.

**Summary of sociocultural approach to the professional development of teachers.** In a sociocultural approach to the professional development of teachers, the focus is on teamwork and collaborative accomplishment (Raphael et al., 2014). Teachers in this study experienced a learning environment that supported teacher agency, allowed for meaningful conversations that addressed real problems of practice, all concentrated on a systemic approach to school improvement. Application of these principles could have played a role in increasing in the CTE of elementary teachers was documented during this study.

**Recommendations for Educational Professional Development**

Three recommendations for the educational professional development of teachers emerged as a result of this study’s findings. First, school districts should consider transitioning to a growth-in-practice model of professional development (e.g. JEPD) in place of the training model (e.g. in-services or workshops). Second, implementation of additional professional learning strategies should be taken into consideration during a JEPD approach. The third and final recommendation is for schools to complete the CTEBS survey once a school year to monitor the CTE levels.
Growth-in-Practice Model of Professional Development

The first recommendation calls for consideration of a shift in paradigm for staff development from the traditional training model to a growth-in-practice model. The growth-in-practice model of professional development fosters collaboration and promotes ways of thinking about collaborative inquiry (Darling-Hammond & McLaughlin, 1995). Contrary to the training model with its formal workshop designs that has prescribed practices detached from classroom practices and disregards best practices for adult learning. A growth-in-practice model lends itself to the incorporation of those sociocultural principals implicated in the influence of CTE in elementary teachers. In this study, teachers engaged in learning that distinguished itself from the training model in the following ways (Lieberman & Miller, 2000, 2007; Little 2006; McLaughlin & Talbert, 1993; Talbert, 2010):

- Learning was steady (grounded in day-to-day realities), intellectual work that promoted meaningful engagement with ideas and with colleagues over time (agency and dialogical).

- Learning involved teachers in knowledge creation through collaborative inquiry into practice (dialogical).

- Learning focused on specific problems of practice and takes into account the experience and knowledge of teachers (agency and situated).

- Learning actively engaged teachers in reflection, analysis, and critique (individual reflection journals).

Professional learning, which is seen through a growth-in-practice model, requires a pledge towards a different way of thinking. It is collegiality based where learning is at the center
to address whole-school concerns. In professional learning teachers accept leadership for accountability and expand their knowledge base through intellectual work and inquire into practices. School administration can support this kind of learning for teachers through establishing networks and partnerships with local academia institutions (e.g. schools in surrounding communities or graduate level institutions) or through small intimate social arrangements such as professional learning communities within their own buildings.

Additional Professional Learning Strategies

The second recommendation suggests the incorporation of additional professional learning strategies during the JEPD approach. Additional strategies would advance the opportunity for the sociocultural principles of agency, situated, dialogical, and systemic. Providing these strategies as additional options to teachers would also address the over-extended group size that the Party Planners encountered during this study.

Once establishing an overarching building goal, teachers could continue to work within professional learning communities. However, the number of communities could be greater when incorporating additional professional learning strategies. These strategies are simply various activities that groups of teachers could utilize in advancing knowledge and instructional strategies towards the overarching goal. By upholding a group environment, teachers experience the meaningful conversations necessary to move through the four quadrants of the Vygotsky space. Agency would still be present in the teachers’ abilities to choose which strategy to participate in and also when assuming the responsibility for actions towards the overarching goal. The systemic principal is upheld as the building collectively works towards the overarching goal. In providing more than three learning options (Dream Team, Literacy Gurus,
and Party Planners), the result would be smaller more intimate group sizes where teachers can be more active in their participation.

In her book *Powerful Designs for Professional Learning*, Lois Brown Easton (2008) identified 22 different learning designs or strategies for teachers to use when engaging in professional learning activities. A building leadership team or teachers can choose a design based on the purposes for professional learning. Thus, the designs can be chosen based on student information desired, need for outside resources, or curricular or pedagogical needs, just to name a few purposes.

**Administer the CTEBS Annually**

The third and final recommendation suggests annually administering the CTEBS survey to teachers within a school building. This tool can be used not only to monitor or measure the level of CTE within a school, but it can also be used as a diagnostic tool. The CTEBS measures CTE on 12 different points within the school culture. Each question is aggregated; therefore, a low score in any of the subcategories could provide vital insight into areas of CTE weakness. The responsibility of administering and analyzing the CTEBS could be taken on by a school’s improvement team or a school’s leadership team made up of principal(s) and teachers. Low or decreased CTE scores in the 12 areas could then be annually monitored and addressed to maintain high levels of CTE. For example, if the CTEBS question such as “How much can school personnel in your school do to control disruptive behavior” scored the lowest out of all 12 questions the leadership team could conduct a needs assessment to determine potential interventions or make the topic a focus for future JEPD sessions. Thus, annual conduction and
Suggestions for Future Research

While the findings and recommendations to this study are beneficial to the field of educational professional development, research regarding the understanding and development of CTE is still warranted. CTE continues to be a relatively young construct of study in the educational research community (Goddard, 2001, 2002; Goddard, Goddard, & Tschannen-Moran, 2007; Goddard, Hoy, & Woolfolk Hoy, 2000, 2004; Goddard & Skria, 2006; Klassen, 2010; Klassen, Usher, & Bong, 2010; Ware & Kitsantas, 2007); however, the following paragraphs will describe four recommendations on ways to extend the knowledge gained based on this study’s findings.

Additional Mixed-Method Studies

With more evidence being published indicating that CTE has many plausible outcomes that benefit school environment and student achievement, the first recommendation is that additional mixed-method studies be conducted on the construct of CTE. Since the construct of CTE remains young in the educational research arena, additional studies exploring practices that influence CTE are encouraged. A mixed-method approach is imperative because of its quantitative and qualitative methodological approaches. The implementation of a pre- and post-study CTE measurement tool is necessary to determine if a relationship exists between CTE and the intended practices. Tschannen-Moran and Barr’s (2004) CTEBS demonstrated its viability to the researcher by providing relevant information while being simplistic in use for the teachers.
Prior to administering the pre-CTEBS survey, future researchers should strongly consider reading through the questions with the group of teachers and establishing agreed upon meaning of each question. For example, one question states, “How much can teachers in your school do to produce meaningful student learning?” The meaning of the word “can” was unclear to some teachers in the study. The concern was does the survey mean teachers have the authority to make changes or teachers desire to make changes. This practice would then minimize any discrepancies in interpretation making the CTEBS scores more valid and reliable.

Once the researcher has quantitatively determined that a relationship between CTE and the intended practices exists, qualitative data begins the vital process of identifying in what ways the intended practices can potentially influence CTE. Individual reflection journals, observations, and one-on-one interviews were valuable in obtaining relevant information for this study. In fact, three reflection journals were adequate for recording the experiences after each JEPD session. However, incorporating reflection entries between JEPD sessions would provide additional insight about the teachers’ experiences as they implemented the JEPD session’s action plan. Consideration should also be taken for attaching a Likert scale to various journal questions. This action would remove the need for the researcher to interpret the subjective degree of impact teachers’ rated their experiences (e.g., good, great, a little, a lot). In regards to the one-on-one interviews, employing the three-interview series recommend by Seidman (2013) assisted the researcher in obtaining in-depth accounts of the teachers’ experiences. Seidman’s protocol allows the researcher and teacher to explore the teacher’s experience by placing it within the context of life history (interview one). Interview two focuses on the details of the teachers’ present experience and then reflecting on its meaning in interview three.
Additional JEPD Sessions

The second recommendation suggests the incorporation of more than three JEPD sessions within a school calendar year. Teachers indicated that the time frame between the JEPD sessions was a hindrance to productivity. In support of this, Heather shared it would be “nice to meet more times throughout the year so that we are not losing our momentum.” Diane extended this thought by adding “three times was not enough.” Another benefit to the addition of more JEPD sessions is that the strategy implemented could be assessed more frequently. Thus, changes to interventions could have happened sooner. For example, if a JEPD session were to occur approximately every six weeks, adequate data would have been collected to assess the progress of the intervention and the action plan could be modified if needed at that point. Whereas assessing progress once during the entire school year (winter data point), could incur the loss of valuable instructional time due to delays in intervention changes.

Supportive Instructional Coaching

The third recommendation suggests incorporating instructional coaching between JEPD sessions. The teachers came together to identify necessary curricular or instructional changes to bring into the classroom. With the daily demands of teachers increasing, implementing new strategies can become challenging especially when initiating by oneself. The assistance of an instructional coach could provide teachers with the support system between JEPD sessions assisting in maintaining. The recommendation would be for a coach to meet two or more times with each teacher prior to the next JEPD session. The coach could provide assistance by way of
encouragement, revisiting outcomes from previous JEPD session, observing and providing feedback, or assisting with preparation of instructional material.

**Additional Learning Strategies**

The fourth and final recommendation suggests extending the study by incorporating additional learning strategies or activities to increase the number of potential teacher groups. Teachers expressed concerns about the size of one particular literacy team. Creating the opportunity to address the same goal through a variety of learning activities would minimize large group sizes while offering multiple options to implement and measure desired interventions. For example, smaller professional learning communities (4-5 teachers each) could be assembled in which teachers engaged in various action research studies. The focus of these studies could be teachers implementing different instructional approaches in attempt to close the achievement gap noted in students’ literacy data. When assembling on the JEPD session days, the individual research teams could present their work and their findings to the group at large. After all presentations, the small groups can reassemble and analyze their data to recommend any changes to their approaches for future instruction. This cycle could then repeat at the next JEPD session.

**Closing Statements**

Teachers are facing many challenges in this era of accountability. The greatest of these is the implementation of reform initiatives that call for additional changes in the educational environment resulting in greater student achievement. Included in such initiatives are greater accountability for teachers to be responsible for the learning of not only their classroom of
students but for all students within that same grade level. As a result, a need has emerged for teachers to come together on their beliefs and practices to overcome challenges and excel in the area of student achievement. This coming together on their beliefs about capabilities is known as CTE.

CTE was recently ranked as the number one factor influencing student achievement (Hattie, 2016). This warrants a further understanding into the development and growth of CTE which this study explored through a mixed-method approach. In the findings, a JEPD approach to professional learning had a statistically significant influence on CTE. The qualitative data presented in this study offered an insight into the contributing factors of a JEPD model that could have led to the increase in CTE. While one of the first studies of its kind, additional qualitative research would contribute to a more comprehensive understanding of the attributes that contribute to the development and advancement of CTE in an elementary school setting.
REFERENCES


APPENDIX A

CONSENT FORM
You are being asked to take part in a research study of how to influence collective teacher efficacy in a school through a means of teacher professional development. Please read this form carefully and email any questions you may have before agreeing to participate in the study.

**What the study is about:** The purpose of this study is to understand if and how job-embedded professional development influences the level of collective teacher efficacy in a school environment.

**What you will be asked to do:** If you agree to be in this study, you will complete a pre- and post-survey on collective teacher efficacy. The survey will take approximately 10 minutes to complete. You will also complete a monthly reflection journal on experiences during the study. The reflection journal may take 10-15 minutes to complete. Upon conclusion of the study, volunteers will be needed to participate in semi-open interviews for further understanding of information collected throughout the study. Interviews will be conducted over a period of three sessions lasting approximately 30 minutes each.

**Risks and benefits:**
I do not anticipate any risks to you participating in this study other than those encountered in day-to-day life. Your responses will be confidential. A benefit you may receive from this study includes an empowering approach to your professional development as a teacher.

**Compensation:** There is no compensation for participating in this research study.

**Your answers will be confidential.** The records of this study will be kept private. In the dissertation I will not include any information that will make it possible to identify you, your school, district, or county. Research records will be kept in a password-protected account; only the researcher will have access to the records.

**Taking part is voluntary:** Taking part in this study is completely voluntary. You are free to withdrawal at any time.

**If you have questions:** The researcher conducting this study is Michele Schluntz, Northern Illinois University doctoral candidate. If you have questions, you may contact Michele at mschluntz@sbcglobal.net or at 815-509-9961. You may also contact her dissertation advisor, Dr. Elizabeth Wilkins at ewilkins@niu.edu or at 815-753-8458. If you have any questions or concerns regarding your rights as a subject in this study, you may contact the Institutional Review Board (IRB) at 815-753-8588.

**Statement of Consent:** I have read the above information, and have received answers to any questions I asked. By signing below, I consent to take part in the study.

Signature ________________________________________ Date______________
Print name of participant _____________________________________________________
By signing this portion, I agree to participate in an interview and be audio recorded.

Signature ________________________________________ Date______________
Print name of participant _____________________________________________________
APPENDIX B

COLLECTIVE TEACHER EFFICACY BELIEF SCALE (CTEBS)
This questionnaire is designed to help gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.

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

Please respond to each of the questions by considering the current ability, resources, and opportunity of the teaching staff in your school to do each of the following.

<table>
<thead>
<tr>
<th>Question</th>
<th>None at all</th>
<th>Very Little</th>
<th>Some Degree</th>
<th>Quite A Bit</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much can teachers in your school do to produce meaningful student learning?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How much can your school do to get students to believe they can do well in school work?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. To what extent can teachers in your school make expectations clear about appropriate student behavior?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. To what extent can school personnel in your school establish rules and procedures that facilitate learning?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How much can teachers in your school do to help students master complex content?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How much can teachers in your school do to promote deep understanding of academic concepts?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How well can teachers in your school respond to defiant students?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How much can school personnel in your school do to control disruptive behavior?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. How much can teachers in your school do to help students think critically?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. How well can adults in your school get students to follow school rules?</td>
<td>1 2 3 4 5 6 7 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. How much can your school do to foster student creativity? 1 2 3 4 5 6 7 8 9

12. How much can your school do to help students feel safe while they are at school? 1 2 3 4 5 6 7 8 9

Demographic questions for study reporting purposes only.

1. What is your gender?
   - Female
   - Male

2. What is your age?
   - 25 or under
   - 26-40
   - 41-55
   - 56 or older

3. How would you classify yourself?
   - Asian/Pacific Islander
   - Black
   - Caucasian/White
   - Hispanic
   - Indigenous or Aboriginal
   - Latino
   - Multiracial
   - Would rather not say
   - Other

4. How many years of teaching experience have you completed?
   - 0-5
   - 6-10
   - 11-15
   - 16-20
   - 21-25
   - 25 or more

5. What is the highest level of education you have completed?
- Bachelor’s degree
- Bachelor’s plus
- Master’s degree
- Master’s plus
- Doctoral degree
APPENDIX C

INDIVIDUAL REFLECTION JOURNAL - OCTOBER
1. What is your perception that the efforts put forth by this group of individuals will have a positive effect on student achievement? Please explain and/or provide an example to support your answer. (Perceived Collective Teacher Efficacy)

2. What was the objective of this job-embedded professional development session and did the group meet the objective? Please explain and/or provide an example to support your answer. (Source: Mastery Experience)

3. Are you more or less likely to incorporate changes in instructional practices to support literacy goals since participating in this job-embedded professional development session? Please explain and/or provide an example to support your answer. (Source: Vicarious Experience)

4. How influential were your peers on your level of motivation towards instructional changes to meet literacy goals? Please explain and/or provide an example to support your answer. (Source: Verbal Persuasion)

5. How did you leave this job-embedded professional development session feeling? Please explain and/or provide an example to support your answer. (Source: Emotional Arousal)
APPENDIX D

INDIVIDUAL REFLECTION JOURNAL – JANUARY
1. What was the objective of this job-embedded professional development session and did the group meet the objective? Please explain and/or provide an example to support your answer. (Source: Mastery Experience)

2. Are you more or less likely to incorporate changes in instructional practices to support literacy goals since participating in this job-embedded professional development session? Please explain and/or provide an example to support your answer. (Source: Vicarious Experience)

3. How influential were your peers on your level of motivation towards instructional changes to meet literacy goals? Please explain and/or provide an example to support your answer. (Source: Verbal Persuasion)

4. How did you leave this job-embedded professional development session feeling? Please explain and/or provide an example to support your answer. (Source: Emotional Arousal)
1. Having spent three job-embedded professional development sessions with this group, what is your perception that the efforts put forth by this group of individuals had a positive effect on student achievement? Please explain and/or provide an example to support your answer. (Perceived Collective Teacher Efficacy)

2. What was the objective of this job-embedded professional development session and did the group meet the objective? Please explain and/or provide an example to support your answer. (Source: Mastery Experience)

3. Are you more or less likely to incorporate changes in instructional practices to support literacy goals since participating in this job-embedded professional development session? Please explain and/or provide an example to support your answer. (Source: Vicarious Experience)

4. How influential were your peers on your level of motivation towards instructional changes to meet literacy goals? Please explain and/or provide an example to support your answer. (Source: Verbal Persuasion)

5. How did you leave this job-embedded professional development session feeling? Please explain and/or provide an example to support your answer. (Source: Emotional Arousal)
APPENDIX F

SEMI-STRUCTURED INTERVIEW QUESTIONS
Interview One: Focused Life History
1. How long have you been a teacher?
2. What is your highest level of education?
3. What drew you to education?
4. What kind of opinions did you have about teaching prior to becoming a teacher?
5. What opinions of teaching have changed since entering the profession?
6. What kind of training have you experienced in any job situation prior to teaching?

Interview Two: The Details of the Experience
1. What worked well in participating collectively towards a specified common goal? (Mastery Experience)
2. What did not go well in participating collectively towards a specified common goal? (Mastery Experience)
3. What organizational techniques made this job-embedded professional development experience effective? Not effective? (Vicarious Experience)
4. What were the groups’ verbal interactions like during the job-embedded professional development sessions? (Verbal Persuasion)
5. Did the job-embedded professional development sessions become more fluent as the study went on? Please provide an example on why or why not. (Mastery Experience)

Interview Three: Reflecting on the Meaning
1. What did you find to be valuable in taking a collective approach to meeting the academic needs of students? (Emotional Arousal)
2. What are your thoughts on working collectively as a group towards a specified common goal? (Emotional Arousal)
3. How did participating in this study impact your ideas on professional learning? (Emotional Arousal)
4. What suggestions would you make to improve upon a job-embedded professional development approach to future professional development sessions? (Mastery Experience)
APPENDIX G

AXIAL CODING NOTES FOR INDIVIDUAL REFLECTION JOURNAL
RESEARCH QUESTION 1
RQ #1 Qualitative – Individual Reflection Journals
What is your perception that the efforts put forth by this group of individuals will have a positive effect on student achievement?

Category: MASTERY EXPERIENCES

Sub-category: COGNITIVE TOOLS
1. increased my knowledge in student growth goals and Webb’s Depth of Knowledge – Sally (October, Literacy Gurus)
2. learned strategies to help with student engagement – Craig (March, Literacy Gurus)
3. Made some good professional growth in some detailed areas of literacy instruction – Heidi (March, Literacy Gurus)
4. We have learned a little more about each grade level and what they might need to ensure students are progressing and meeting common core standards – Lindsey (March, Dream Team)

Sub-category: BEHAVIORAL TOOLS

Impact Curriculum
1. resources that will help close the curriculum gap – Laurie (October, Literacy Gurus)
2. supplementing our curriculum will benefit student achievement – Savannah (October, Literacy Gurus)
3. creating a common vocabulary for students to be familiar with and more prepared for future instruction – Lola (October, Dream Team)
4. addressed weak areas in language curriculum; created common language and symbols – Lindsey (October, Dream Team)
5. able to think of questions to ask that will benefit our future curriculum to promote deeper thinking on the part of students – Laurie (March, Literacy Gurus)

Impact Instruction
6. cohesive school environment to decrease loss of instructional time – Bella (October, Dream Team)
7. give kids strategies to use when practicing or implementing on their own – Cadence (October, Party Planners)
8. clear idea for a purpose for student achievement – Lola (March, Dream Team)
9. developing common close reading symbols for each grade students will be more able to implement those strategies more effectively by having common instruction – Savannah (March, Literacy Gurus)
10. simply providing the time for individuals to have productive collaborative conversations about ideas and concerns that occur every day in their classroom – Shannon (October, Dream Team)
11. opportunity to prepare and plan for literacy/writing/math days that can be incorporated into the school year or after school events – Sophia (March, Party Planners)

Category: VICARIOUS EXPERIENCE

Sub-category: MOTIVATION
1. individuals really want to make a difference in student achievement – Craig (October, Literacy Gurus)

Sub-category: COLLABORATION
1. everyone shared and participated – Melanie (October, Party Planners)
2. worked together to generate ideas – Kendall (March, Dream Team)
3. the effort put forth will have a positive impact once implemented – Paige (March, Dream Team)
4. discussions bounce around the room as problem solving tactics were utilized to address the current curriculum needs of our school – Shannon (March, Dream Team)

Sub-category: PRODUCTIVE
1. leader got things done in an orderly manner – Regan (October, Literacy Gurus)

Sub-category: FOCUSED
1. focused on additional ways to provide reading and writing opportunities for the children. – Sophia (October, Party Planners)

Category: VERBAL PERSUASION  
**Sub-category: OPPORTUNITY FOR DISCUSSION**

1. through discussion provided better resources for the students that will have a positive effect on student achievement – Felicia (October, Literacy Gurus)

**Sub-category: COLLABORATION TO GENERATE IDEAS**

1. group promoted motivation and excitement about learning – Laura (October, Party Planners)
2. staff is communicating more with each other about literacy based goals – Sally (March, Literacy Gurus)

**Sub-category: DISCUSSED CURRICULUM**

1. we discussed curriculum which directly relates to the students – Sabrina (March, Literacy Gurus)

Category: AFFECTIVE STATES  
**Sub-category: EMOTIONAL CONNECTION TO LEARNING**

1. promotes motivation and excitement about learning; promotes a positive view about learning and education – Heather (October, Party Planners)
2. ideas to get students excited about literacy by looking at data and addressing areas of needed improvement through engaging activities – Laura (October, Party Planners)
3. activities planned with get the students and their families motivated and excited about literacy – Rose (October, Party Planners)
4. participate in fun activities that focus on reading strategies – Sadie (October, Party Planners)

**Sub-category: TIME**

1. simply providing the time for individuals to have productive collaborative conversations – Shannon (October, Dream Team)

**Sub-category: PRODUCTIVE SESSION**
1. established common language proof reading marks, a common higher order language throughout grade levels, and delved into NGSS – Bella (March, Dream Team)
2. all the activities planned were carried out – Cadence (March, Party Planners)

Sub-category: ENJOYABLE ACTIVITIES AND EVENTS
1. planned many enjoyable activities and events for students – Diana (March, Party Planners)
2. the group really tries to come up with fun activities but educational activities – Sadie (March, Party Planners)

Sub-category: MOTIVATION
1. all activities were motivation – Heather (March, Party Planners)
2. fun all school activities – Melanie (March, Party Planners)
3. the "parties" that have planned have been great – Regan (March, Party Planners)
4. got students excited about literacy – Laura (March)
APPENDIX H

AXIAL CODING NOTES FOR RESEARCH QUESTION 2
Category: PROCESS

Sub-category: AGENDAS
1. So I liked how there was an agenda set – Kendall (Dream Team)
2. an agenda ahead of time and knowing the time we were meeting – Laura (Party Planners)
3. an agenda and staying on task – Lindsey (Dream Team)
4. an agenda and a focus – Morgan (Dream Team)
5. being prepared, having an agenda for each meeting – Darla (Party Planners)
6. all of the PLC leaders, met before our meetings – Darla (Party Planners)
7. agenda to work on this area and everyone came with their ideas in that area – Paula (Literacy Gurus)

Sub-category: OBJECTIVES
1. having a clear objective – Laurie (Literacy Gurus)
2. I think one of the big things is the way our teams are, the literacy teams, the gurus, the dream team and such. How we all do have common goals. There you go back to the common goals. But I think that was huge. That gives us direction and that we understand expectations to that as well and we’re all working together. – Heidi (Literacy Gurus)
3. tacking it piece by piece. So having an objective each time that we had to meet keep us from getting out of control in what we were talking about and the different tasks we were assigning. – Sophia (Party Planners)

Sub-category: DISCUSSION
1. able to discuss with others specially grade levels close to us – Paige
2. open discussion – Paige (Dream Team)
3. We respected each other’s knowledge and what they could contribute to the conversation – Shannon (Dream Team)
4. It was great to just have the opportunity for open, honest conversation about our needs – Silvia (Literacy Gurus)
**Sub-category: TIME**

1. having the time, the five hour day, to meet was beneficial – Silvia (Literacy Gurus)
2. having a big chunk of time to sit down – Lindsey (Dream Team)

**Sub-category: INEFFECTIVE PRACTICES**

1. not knowing our future curriculum. Some felt we should be doing more, while others thought we should be doing less until we have more facts and materials – Laurie (Literacy Gurus)
2. meet with our teams and at the end meet back up and discuss so we know where everybody else is at too. – Silvia (Literacy Gurus)

**Sub-category: SUGGESTIONS**

**Planning**

1. make sure everyone has input on what’s happening and on the goal that would be good – Heidi (Literacy Gurus)
2. making sure there is a specific objective that the meeting is going to handle – Paula (Literacy Gurus)
3. just having my curriculum maps there because being a second year teacher I still don’t know off the top of my head what we teach. So just having a reference when we are discussing things like that. – Paige (Dream Team)
4. removing any kind of team that is not academic or instruction related – Rose (Party Planners)
5. starting initially it would be nice to work as a grade level – Suzy (Dream Team)
6. branching out to the other grade levels – Morgan (Dream Team)

**Scheduling**

1. more time to meet, the three or four times was not enough – Darla (Party Planners)
2. to meet more times throughout the year so that we are not losing our momentum. – Heather (Party Planners)
3. There was a lot of time in between – Laura (Party Planners)
4. is meeting a little bit with grade level teams to do some collective planning – Morgan (Dream Team)

Regrouping
1. would meet at the beginning as a whole staff and at the end as a whole staff to share ideas and possibly get a whole group feedback – Laurie (Literacy Gurus)
2. after we break out we all come back together that day and read two-three lines of what that group had done - Lindsey (Dream Team)
3. is meeting a little bit with grade level teams to do some collective planning and also then branching out to the other grade levels – Morgan (Dream Team)

Category: LEADERSHIP

Subcategory: CHAIRS/CO-CHAIRS
1. What made it effective was having the chair and co-chair being open-minded to what we were discussing – Laurie (Literacy Gurus)
2. then the head chair being open to additional additions and not just what they had in mind. – Laurie (Literacy Gurus)
3. having a chair person, someone to run and keep the meeting going, was good. – Heather (Party Planners)
4. I liked how we broke out into smaller groups and then there was review before hand and before meeting. And I liked how there was a person in charge of each group so it kept everyone focused and it kept everyone on the agenda. It didn’t let it get swayed off too much because sometime when you get into groups like that the topics can kind of sway. And someone was kind of keeping everyone focused on what the common goal was to focus on.– Kendall (Dream Team)
5. chairs and co-chairs that they were able to lead the meetings to keep us on task – Morgan (Dream Team)
6. someone organized what we needed to do and what we needed to bring with us to get something done correctly this time – Paula (Literacy Gurus)
7. one person takes the notes and goes back and emails to all of us on what was discussed. – Regan (Party Planners)

Subcategory: SUGGESTIONS
1. We want to do something, but the district is saying “hold on.” – Kendall (Dream Team)
2. And to also know what their (district administration) plan is because we don’t really know. Unless you are on that specific committee you don’t really know what the district’s plan is – Kendall (Dream Team)
3. Maybe administers could be more involved to help us and be more open to our ideas – Kendall (Dream Team)

Category: PARTICIPANTS
Subcategory: ORGANIZATION INTO TEAMS
1. how we broke into K-2 and 3-4 because we kind of do, do different things in regards to reading strategies like third and fourth use more of the higher level thinking than the predicting and sequencing. So that we’re building upon their knowledge so it is not brand new in fourth grade. – Bella (Dream Team)
2. Kindergarten through fourth grade so everyone was well represented – Lindsey (Dream Team)
3. people signed up for where they felt they would be able to benefit the school the most – Suzy (Dream Team)
4. was two representatives from every grade level – Suzy (Dream Team)

Subcategory: INEFFECTIVE PRACTICES
1. have divided up into smaller groups after that chairperson decided on the activity – Heather (Party Planners)
2. It is a high risk situation like I mentioned as far as sharing your ideas. Quieter people are less likely their ideas and you have to be a little bit braver person or maybe had been in the school longer to feel like you wanted to risk sharing your input out loud in front of such a large group were a lot of talking was happening. – Rose (Party Planners)
3. At times when people brought their negativity out, I’m very driven. If we’re working on something let’s get started right away. – Suzy (Dream Team)
4. There was a lot of side conversations occurring. – Darla (Party Planners)

Sub-Category: SUGGESTIONS
1. work in smaller groups – Craig (Literacy Gurus)
2. I would have liked to get into smaller group to better utilize the time and be more productive. – Darla (Party Planners)
APPENDIX I

AXIAL CODING FOR RESEARCH QUESTION 3 MASTERY EXPERIENCE
RQ #3 Mastery Experience – Interviews
What worked well in participating collectively towards a specified common goal?

Category: COLLABORATION WITH COLLEAGUES
1. first year teacher hearing from veteran teachers – Bella (Dream Team)
2. seeing other teachers and what they use in the classroom, how they organize things, how they managed the class, what they use to keep students engaged – Craig (Literacy Gurus)
3. was that we all have lots of ideas and some new ideas that we haven’t discussed before – Heather (Party Planners)
4. was being able to share ideas with one another – Heidi (Literacy Gurus)
5. That’s the part I liked the best was listening to everyone and seeing what they were doing and they needed - Paula (Literacy Gurus)
6. Being able to discuss with the grade levels close to us – Paige (Dream Team)
7. was just to be able to discuss all of our concerns – Silvia (Literacy Gurus)
8. to have that time to meet with other grade level – Suzy (Dream Team)

Category: SESSION CONTENT
1. actually work on things that we can use every day in our classroom – Heidi (Literacy Gurus)
2. all had the same ideas that we wanted to work on reading – Kendall (Dream Team)
3. goals are and were able to break it down per grade level of what is expected at each grade level. And we are also aware of what’s going to be taught at the next grade level – Lindsey (Dream Team)
4. little more coordinated because the committees are underneath this overall group – Rose (Party Planners)

Category: LEADERSHIP
1. is having another partner, having Corina there well, to run the meetings – Darla (Party Planners)
2. one person leading the group – Regan (Party Planners)
What did not work well in participating collectively towards a specified common goal?

Category: INEFFECTIVE PARTICIPATION
1. not all levels participating in sharing as much as others – Laurie (Literacy Gurus)
2. my experience with the curriculum is as not through as yours and anyone else in the group – Bella (Dream Team)
3. a lot of side conversations going – Darla (Party Planners)
4. kind of a session of complaining, but like I said part of that was good to hear from other people. So I’m sure it was beneficial in some ways – Heidi (Literacy Gurus)
5. think the group was too big – Rose (Party Planners)
6. got very negative and overwhelming to where we didn’t’ have a purpose – Suzy (Dream Team)

Category: LACK OF ADMINISTRATION INVOLVEMENT
1. feeling unsure of what our curriculum is to be – Laurie (Literacy Gurus)
2. we’re so anxious and ready and wanting to do this – Kendall (Dream Team)
3. don’t have definite answers – Paige (Dream Team)

Category: PROCESS
1. a matter of streamlining things – Heather (Party Planners)
2. trying to get too many things done – Laura (Party Planners)
3. at first we were just trying to figure out; didn’t even know where we going; decided to narrow; we got together and came up with a plan. Then it worked well. – Paula (Literacy Gurus)
Did the job-embedded professional development sessions become more fluent as the study went on?

Category: NO (1)

1. I think it was because we were switching gears that we hit that bump – Suzy (Dream Team)

Category: YES (16)

Sub-category: UNDERSTANDING JEPD

1. became more fluent due to knowing what to expect and how we converse with each other – Laurie (Literacy Gurus)
2. once we started to flow I got the just of it – Craig (Literacy Gurus)
3. each meeting we had more and more to talk about, but also some people had in their mind ok, we’ll get the ideas but aren’t the committees going to take it from there - Darla (Party Planners)
4. as we learned more about it, it was able to become more fluent in that way – Kendall (Dream Team)
5. year as things went on, we had more of an agenda, a goal, and a product to come out with – Morgan (Dream Team)
6. when you start any project you’re not sure where you’re going but after getting together a couple of times you start smoothing out some wrinkles – Paula (Literacy Gurus)
7. purpose became more clear – Rose (Party Planners)

Sub-category: MAINTAINING FOCUS

1. become more fluent as we narrowed down what we were talking about – Heather (Party Planners)
2. kept a goal going – Kendall (Dream Team)
3. once we kind of figured out what we agreed on doing and what we wanted to do it became more fluent - Sophia (Party Planners)
Sub-category: BUILDING UPON PREVIOUS WORK

1. really built on what we did the last time and we always go back and touch on
   – Bella (Dream Team)
2. working towards the common goal and we get a little farther each time - Paige
   (Dream Teams)
3. We knew what needed to be done and who was able to handle what type of
   things – Laura (Party Planners)
4. the more you’re with certain people the more open you’re going to be and
   honest and willingness to speak up - Lindsey (Literacy Gurus)
5. helpful to see those colleagues again and retouch on things we talked about –
   Lindsey (Literacy Gurus)
APPENDIX J

AXIAL CODING FOR RESEARCH QUESTION 3 VICARIOUS EXPERIENCE
RQ #3 Vicarious Experience – Individual Reflection Journals
Are you more or less likely to incorporate changes in instructional practices to support literacy goals since participating in this job-embedded professional development session?

Category: INSTRUCTIONAL PRACTICES INFLUENCED

1. use these activities to motivate students - Heather (October, Party Planners)
2. I will be adjusting my own use of vocabulary – Lindsey (October, Dream Team)
3. I want to do what is best for my students education, for real life and standardized testing – Laurie (October, Literacy Gurus)
4. because I am also learning about other grade level expectations for daily work and for assessments – Cadence (October, Party Planners)
5. other grades need to show improvement; work harder to incorporate more non-fiction texts and lessons into my story time and guided reading – Laura (October, Party Planners)
6. Meeting with my group showed me of more strategies I can use with students – Craig (October, Literacy Gurus)
7. I learned a variety of different resources that I could use – Craig (January, Literacy Gurus)
8. we will be doing activities for math day - Regan (January, Party Planners)
9. timeline for guided reading, and now I will have something to follow for small group instruction – Paige (January, Dream Team)
10. make sure my students have plenty of background knowledge so they can get the most out of these 2 events – Laura (January, Party Planners)
11. these activities allow me to help motivate my students – Heather (January, Party Planners)
12. I believe that as a grade level team it is extremely important to be on the same page – Lindsey (January, Dream Team)
13. teach my kindergarten Special Ed students to reinforce our phonics curriculum rather than confuse them with an intervention that teaches them their letter sounds and phonics concepts differently – Silvia (January, Literacy Gurus)
14. helpful to have some guidance while the literacy program is being created – Kendall (January, Dream Team)

15. Meeting with our literacy teams has allowed me to get ideas and collaborate more with my coworkers – Diana (March, Party Planners)

16. value in use working across grade levels to help support each other in teaching the students – Lindsey (March, Dream Team)

17. because I am first year teacher in my own classroom. I am always looking for ways to improve – Bella (March, Dream Team)

18. I am involved in the planning and understand the reasoning behind the activities - Heather (March, Party Planners)

19. likely to keep activities going on in my classroom – Regan (March, Party Planners)

20. likely to keep activities going on in my classroom – Sabrina (March, Dream Team)

21. incorporate more games/activities into my daily instruction and not just reserve them for special days since the kids get so excited – Laura (March, Party Planners)

22. like it will help my students stay on task – Craig (March, Literacy Gurus)

23. I will and my class will participate in the activities that were discussed – Sadie (March, Party Planners)

24. I have a better understanding of what close reading is and what symbols to use - Savannah (March, Literacy Gurus)

25. incorporate these suggestions upon finding additional time to create unit lessons for a science standard – Shannon (March, Dream Team)

26. additional markings were added to what I currently do – Heidi (March, Literacy Gurus)

27. incorporating all of the days/ideas into my classroom plans – Sophia (March, Party Planners)

**Category: CURRICULUM INFLUENCED**
9. because goals or holes in current curricular practices have been identified - Shannon (October, Dream Team)
10. use more non-fiction in guided reading groups – Paula (October, Literacy Gurus)
11. think a common language across the board should have been addressed a long time ago – Lola (October, Dream Team)
12. Since our school is struggling with information, I will begin to incorporate more informational text in the classroom – Sadie (October, Party Planners)
13. incorporate different passages to increase nonfiction understanding - Savannah (October, Literacy Gurus)
14. am familiar with this model and experienced a great amount of success with my students when utilizing this model – Shannon (January, Dream Team)
15. include more note taking skills and relating fiction and nonfiction – Aaron (January, Literacy Gurus)
16. changes now that there is a clear continuum of what we are supposed to do and follow – Lola (January, Dream Team)
17. since our literacy curriculum is being revamped it will be helpful to have some guidance while the literacy program is being created – Kendall (January, Dream Team)
18. I will refer to the map created in this session – Sabrina (January, Dream Team)
19. I think as a school we are more likely to incorporate changes to support literacy goals. I feel that our continuum that we re-did was a step in the right direction and it is what is needed to get everyone on the same page – Lola (March, Dream Team)
20. student achievement in literacy is an area that is always a concern – Kendall (March, Dream Team)

Category: INSTRUCTIONAL PRACTICES NOT INFLUENCED
1. didn't provide me the instructional practices I need at my grade level – Sally (October, Literacy Gurus)

2. objective was to plan meaningful activities for students, not to improve our teaching – Rose (October, Party Planners)

3. I feel like my job as leading the Party Planners does not require too much of instructional change – Diana (January, Party Planners)

4. Instructional practices were not influenced by this session – Rose (January, Party Planners)

5. This aspect of literacy provided more opportunities to confer on how to create school wide activities and promote family involvement – Cadence (March, Party Planners)

6. The team I'm on does not impact instructional practices – Rose (March, Party Planners)

7. I just do not know where to go from here – Paige (March, Dream Team)

Sub-category: NO END PRODUCT

1. nothing was actually changed – Paula (January, Literacy Gurus)

2. Once annotation symbols are agreed upon, I will incorporate them into my instructional practices in literacy – Sally (January, Literacy Gurus)

3. At this point we have just scheduled events – Cadence (January, Party Planners)

4. have limited ways in doing the actual changing – Felicia (February, Literacy Gurus)

Category: INDIFFERENT (2 Responses)

1. I always try to do the best for my students – Felicia (October, Literacy Gurus)

2. would have incorporated change either way – Laurie (March, Literacy Gurus)
APPENDIX K

AXIAL CODING FOR RESEARCH QUESTION 3 VERBAL PERSUASION
RQ #3 Verbal Persuasion

Interview #2 Question #3

What were the groups’ verbal interactions like during the job-embedded professional development sessions?

Category: PROFESSIONAL

1. of brainstorming out loud. Which is kind of cool because you get to see what everyone is thinking and ask if that works for you or if it doesn’t work – Bella (Dream Team)
2. kind of like a brainstorm session – Paige (Dream Team)
3. Good, constructive criticism – Craig (Literacy Gurus)
4. all very professional. I thought everyone was very professional towards each other and collaborative. I never felt like anyone’s ideas were not being accepted or taken seriously or anything like that – Kendall (Dream Team)
5. Everyone had a chance to voice their opinion – Laura (Party Planners)
6. They were constructive. I don’t think anybody talk negatively about what another grade level was doing. I think we tried to understand the best we could of various levels – Lindsey (Dream Team)
7. shared their ideas. I think everyone was professional with each other. They did a good job of listening – Morgan (Dream Team)
8. very respectful and listening and communicating well with one another. People were very collaborative and respectful of each other’s opinions. – Suzy (Dream Team)

Category: INFORMAL

1. very open and friendly – Laurie (Literacy Gurus)
2. friendly and happy. Joking, but serious at times. We had a good time with our group – Regan (Party Planners)
3. positive. We all got along. We voiced our concerns – Silvia (Literacy Gurus)
4. very laid back. And that is why I think that one that when we left, it was good that everyone felt that comfortable that they could talk like that – Heidi (Literacy Gurus)
5. informal, more like discussions. Generally everyone was just sharing their ideas. We did have one person in charge who would kind of lead the discussions, but from there it was just kind of conversations – Sophia (Literacy Gurus)

Category: STRAINED

1. you’re going to have those vocal people that they’re going to say their opinions and then you have those who do not say anything at all. I think, like I said before, if we split off next year going into sub groups. – Diana (Party Planners)
2. sometimes when we were frustrated with things that were happening in the groups and in the school because we felt like we didn’t get time to work together to talk things through at the different levels. Like I said the first time with so many topics we were all like more kind of complaining about things, but when we narrowed it down and said let’s fix one area – Paula (Literacy Gurus)
3. there was a lot of talking over each other; Quieter people are less likely their ideas and you have to be a little bit braver person or maybe had been in the school longer to feel like you wanted to risk sharing your input out loud - Rose (Party Planners)

Individual Reflection Journal Question
How influential were your peers on your level of motivation towards instructional changes to meet literacy goals?

Category: PEERS WERE INFLUENTIAL

Sub-category: LEARNING FROM PEERS

1. helps to hear what other classrooms are doing to support literacy in their classrooms – Paula (October, Literacy Gurus)
2. Everyone came with ideas for resources; proving all teachers were motivated to be involved – Felicia (October, Literacy Gurus)
3. bounced ideas off of one another – Regan (October, Party Planners)
4. receptive to adding input and giving feedback on ideas presented – Cadence (Party Planners) (October)
5. Peers were enthusiastic and full of ideas – Rose (October, Party Planners)
6. providing additional ideas about how to make learning fun – Heather (January, Party Planners)

7. offered insight on ways to incorporate literacy into events intended to increase community and family interaction – Cadence (January, Party Planners)

8. can influence me, because my peers might have wonderful ideas that they have found to be successful in their classroom – Sadie (January, Party Planners)

9. agreed with my peers that instructional changes are needed – Paula (January, Literacy Gurus)

10. These strategies will at least give a general plan and starting point to begin implementing in literacy – Kendall (January, Dream Team)

11. helps to hear what others in each grade level need the lower levels to work on so – Lola (March, Dream Team)

12. excited to hear what they are doing or have tried doing to meet the needs of their students – Shannon (March, Dream Team)

13. learning about my peers past experiences with was very helpful – Craig (March, Literacy Gurus)

14. opportunity for sharing ideas, which was influential on my instructional changes – Heidi (March, Literacy Gurus)

15. highly educated people who know so much and are willing to share what they know – Sally (March, Literacy Gurus)

**Sub-category: COLLABORATION (14)**

1. because of their willingness to collaborate – Heather (October, Party Planners)

2. supportive in changes to our instruction and homework – Aaron (January, Literacy Gurus)

3. enjoy listening, learning and the thought provoking sessions that come from collaborating with my peers – Shannon (January, Dream Team)

4. great to bounce ideas off of my peers. It is so exciting to have someone to discuss how things are going in the classroom – Lindsey (January, Dream Team)
5. work together to plan – Laura (January, Party Planners)
6. tell a difference when we work together – Suzy (January, Dream Team)
7. am glad to have a support group that has tried so many things – Bella (March, Dream Team)
8. whole group is very motivated towards getting a literacy program that is consistent grade to grade – Silvia (March, Literacy Gurus)
9. well together and we accomplished our goals – Cadence (March, Party Planners)
10. all teachers want to make sure they are teaching the same things and are preparing their students for the following year – Sabrina (March, Dream Team)
11. we all want to help the students – Kendall (March, Dream Team)
12. group and discussed ways we can meet the goals of every students in the building – Sadie (March, Party Planners)
13. motivated to create common symbols that all grades could achieve – Suzy (March, Dream Team)
14. all on the same page – Sophia (March, Party Planners)

Sub-category: INSPIRED MOTIVATION
1. believe in the same goal and are motivated to move towards that goal then any amount of work that needs to be done I'm willing to do it – Shannon (October, Dream Team)
2. feel the motivation of them will help in creating motivation within their grade levels as well – Bella (October, Dream Team)
3. motivated me to come up with ideas to incorporate it into my classroom – Laura (October, Party Planners)
4. extremely motivated to find supplemental materials that will allow student growth – Savannah (October, Literacy Gurus)
5. very motivated towards instructional changes – Craig (October, Literacy Gurus)
6. were positive and energetic which helped me stay motivate – Craig (January, Literacy Gurus)
7. provided additional motivating activities and ideas that we could try – Sophia (January, Party Planners)

**Sub-category: REALIZATION OF COMMON THOUGHTS**
1. all on the same page and agreed this should help our students – Lola (October, Dream Team)
2. all worked together and were on the same page for where we wanted things to go – Sophia (October, Party Planners)
3. very agreeable, and had the same thoughts – Laurie (October, Party Planners)

**Category: PEERS WERE NOT INFLUENTIAL**
1. did not make any instructional changes, so there was no influence – Heidi (January, Literacy Gurus)
2. Some were just not motivated, but others were excited to bring out their input – Diana (March, Party Planners)
3. number of peers seemed like they were just putting in their required time. There isn't a whole lot of enthusiasm for instructional change – Rose (March, Party Planners)

**Category: PEERS WERE SOMEWHAT INFLUENTIAL**
1. did not get much covered. We talked a lot – Silvia (January, Literacy Gurus)
2. They were motivating, but I liked to bring my own ideas also – Heather (March, Party Planners)
3. Some, not very many, did not want to share/or had nothing to share – Laurie (March, Literacy Gurus)
4. all discussed how we might include games/centers into our daily instruction to help meet literacy goals – Laura (March, Party Planners)
APPENDIX L

AXIAL CODING FOR RESEARCH QUESTION 3 EMOTIONAL AROUSAL
RQ #3 Emotional Arousal

How did you leave this job-embedded professional development session? Please explain and/or provide an example to support your answer.

How did you leave this job-embedded professional development session Please? Please explain and/or provide an example to support your answer.

Category: PLEASANT

Sub-category: EXCITED

1. Positive, excited about sharing news with students – Heather (October, Party Planners)

Sub-category: GREAT

1. Great! It was nice to know that we have agreed on a common language for editing student work – Lindsey (October, Dream Team)
2. Great we go a lot of things completed - Regan (March, Party Planners)
3. Excited that we already have some basic plans in place for next year too – Sophia (March, Party Planners)

Sub-category: GOOD

1. time was used productively and it was directly related to my classroom curriculum – Shannon (October, Dream Team)
2. felt like we got a lot accomplished! We discussed as a team and no one took complete dictatorship – Bella (October, Dream Team)
3. made good use of our time and were able to get a start on our goal – Lola (October, Dream Team)
4. think we have a good basis of where we want things to go – Sophia (October, Party Planners)
5. good knowing that we have a group of people feeling the same way about our educational deficits and wanting to work together to fix it – Laurie (October, Literacy Gurus)
6. Felt good about the planning – Melanie (October, Party Planners)
7. felt like we got a lot accomplished – Rose (October, Party Planners)
8. accomplished something that could be used tomorrow in our classrooms – Shannon (January, Dream Team)
9. collaborated on creating engaging events for students to enjoy literacy and writing – Aaron (January, Literacy Gurus)
10. we got a lot done in this meeting - Regan (January, Party Planners)
11. good about providing students opportunities to read and do other literacy activities outside of the regular school day – Laura (January, Party Planners)
12. Motivated to make these events successful – Heather (January, Party Planners)
13. we used our time wisely and planned exciting events that will benefit all – Cadence (January, Party Planners)
14. able to contribute more productively this time because I volunteered to be part of one of the subcommittees and helped do some planning for that – Rose (January, Party Planners)
15. we had finished the map and discussed its importance - Sabrina (January, Dream Team)
16. Good, because I feel I am doing things right so far with NGSS – Sabrina (March, Dream Team)
17. good about most things, but still wanting to do more to help students in; Having ideas to implement and try is very helpful while waiting for the new curriculum – Kendall (March, Dream Team)
18. good because we came up with several activities that the school will be doing – Sadie (March, Party Planners)

Sub-category: HAPPY

1. group got a lot done and we felt pretty successful – Regan (October, Party Planners)

Sub-category: CONFIDENT

1. confident that we met our goal for today's meeting and also planned ahead on many activities. Goals for next meeting were discussed and deadlines set – Cadence (October, Party Planners)
2. understand the essence and importance of the timeline. Following the timeline ensure structure and flow across the grade levels – Bella (January, Dream Team)

3. Confident of the symbols we created - Suzy (March, Dream Team)

**Sub-category: MOTIVATED**

1. motivated to find some great non-fiction lessons & texts – Laurie (October, Literacy Gurus)

2. left feeling pumped and ready to mold minds – Craig (October, Literacy Gurus)

3. feeling motivated and more comfortable. They offered information which made me feel more prepared with teaching literacy – Craig (January, Literacy Gurus)

4. motivated to make changes in my teaching – Suzy (January, Dream Team)

5. Looking forward to planning activities for next year – Heather (March, Party Planners)

6. feeling motivated. We discussed a lot of strategies for student engagement and I'm motivated to see if this will have my students participate more in class – Craig (March, Literacy Gurus)

**Sub-category: POSITIVE**

1. positive since there would now be a clearer guideline to begin implementing in literacy – Kendall (February, Dream Team)

**Sub-category: ACCOMPLISHED**

1. accomplished and that we really did something to improve our school – Lola (January, Dream Team)

2. a lot accomplished and I am looking forward to our Reading Night, Literacy Day, and hopefully our Math Day – Sadie (January)

3. felt accomplished that we were able to accomplish our objective and we did a good job doing it – Laurie (March, Party Planners)

4. confident that our goals were met and look forward to new ideas for next year – Cadence (March, Party Planners)
5. accomplished because we did everything we needed to – Laura (March, Party Planners)
6. Completed what was asked of us – Heidi (March, Literacy Gurus)
7. accomplished our goal and I was ready to share with my teammates – Sally (March, Literacy Gurus)

**Sub-category: CLARITY**
1. better understanding of how I should go about setting up my guided reading time and what I need to prepare with my students to get ready for the 4th grade – Paige (January)

**Sub-category: PREPARED**
1. Prepared and ready to plan - Sophia (January)

**Sub-category: REASSURE**
1. my grade level rep and myself were on the same page. That makes me feel like my students are getting the correct material presented to them and in the most logical order – Lindsey (January)

**Sub-category: HOPEFUL**
1. I left this session feeling hopeful that our district leaders will listen to its teachers and help us get a literacy program in place that will help all of our students – Silvia (March, Literacy Gurus)

**Sub-category: RELIEVED**
1. feeling glad that we're finished planning events for the year – Rose (March, Party Planners)

**Sub-category: SATISFIED**
1. pleased that a discussion on implementation on NGSS has begun for our building – Shannon (March, Dream Team)

**Category: UNPLEASANT**
1. Unsatisfied: would like to have more job-embedded professional development sessions that I can prepare and use in the classroom with my students/curriculum – Sally (October, Literacy Gurus)
2. Only a Start: like it was only a start. Nothing was really finalized at this time – Paula (October, Literacy Gurus)

3. Bittersweet: gained a lot of information but found it will be difficult to obtain what we need – Felicia (October, Literacy Gurus)

4. Frustrated: frustrated at lack of materials and funds but motivated in finding own materials through – Suzy (October, Dream Team)

5. Frustrated: left feeling a little frustrated because not much was accomplished to bring about any changes – Paula (January, Literacy Gurus)

6. Frustrated: We were discussing important topics but I feel like our concerns will not go anywhere. Our teachers are frustrated – Silvia (January, Literacy Gurus)

7. Defeated: I wish more of the teachers would have shared ideas because it would have created for more collaboration and discussion – Diana (January, Party Planners)

8. Defeated: Defeated, we were unable to accomplish much due to the present state of our reading curriculum. Discussions did not lead to action in my opinion. We all were willing to act, but couldn't get started – Sally (January, Literacy Gurus)

9. Disappointed: need more answers from administration before our goals can be met, so we left feeling disappointed – Felicia (January, Literacy Gurus)

10. Overwhelmed: After discussing the science standards a little overwhelmed. There is so much to do – Lindsey (March, Dream Team)

11. Overwhelmed: times I feel a little overwhelmed because one, it is a lot of very important information, and two, because I do not feel, as a first-year teacher, that I am suitable for the Dream Team because I do not have the experience to offer to discussion. I do feel enriched to be part of this team though because I am looking at curriculum different that I was before being on this team – Bella (March, Dream Team)

12. Overwhelmed: left this session feeling slightly overwhelmed and confused – Paige (March, Dream Team)
13. Less Productive: accomplished as much as we had in other sessions, but feel that we were waiting on administration – Lola (March, Dream Team)
APPENDIX M

AXIAL CODING OF INTERVIEW QUESTIONS FOR EMOTIONAL AROUSAL
Interview #3 Question 1

**Category: COLLABORATIVE**

1. nice working collaboratively with everybody to see their ideas and how I can branch out from them – Bella (Dream Team)
2. think just having all those different minds and different grade levels coming together to form different ideas – Diana (Party Planners)
3. helpful to work with other staff members in a different grade level to kind of figure out what we could help as Kindergarten teachers in first grade, second grade and so on – Laura (Party Planners)
4. working with the other teachers throughout the building to discuss what each grade level needed help with and where we should go – Paula (Literacy Gurus)
5. I think that was helpful because we knew where we were supposed to be and what I should expect from my kids to prepare them for next year. – Paige (Dream Team)
6. a collective approach the pool of ideas was greater than if we were alone – Rose (Party Planners)
7. representatives from all grade levels. So that we could make sure that things were consistent across the school and that we could get feedback from teachers at different levels so see what people thought we needed or needed to work on – Sophia (Party Planners)
8. most valuable was just being able to get together as a group and meeting to talk about all of our concerns and what we would like to see done and the goals that we made for the school and the students – Silvia (Literacy Gurus)
9. think sometimes talking other grade levels and having the opportunity to do that will define more gaps – Suzy (Dream Team)

**Category: INFORMATIVE**

1. find out what the younger grades teach and how they grow to use or don’t grow to use those skills – Laurie (Literacy Gurus)
2. valuable was hearing other teachers, what their opinions and past experiences were with the curriculum – Craig (Literacy Gurus)

3. valuable to hear other ideas and then across grade level too. To see where they are starting at in Kindergarten and then where they need to be when they come to fourth grade. So, that we are not all teaching the same thing – Kendall (Dream Team)

4. extremely important to hear where all the grade levels were doing in order to meet my students’ needs – Lindsey (Dream Team)

5. able to meet and hear different perspectives of different grade levels on the same topic – Morgan (Dream Team)

6. new ideas especially from different grade levels. Sometimes there are things you can use with other grade levels or know where you need to be and so to help them also reach that goal. – Heather (Party Planners)

7. liked that we all got to all share ideas that we did in our classroom that were immediate affecting our students – Heidi (Literacy Gurus)

8. Interview #3 Question 2

Category: PLEASANT THOUGHTS

Sub-category: GREAT

1. great! I am all for that. I think that just like we did it helps – Heidi

2. great resource to have. To have lots of people and they volunteered for which group they wanted to be at; actually invested into it – Kendall

3. great talking about the ideas to get a final decision takes the stress off of one or two individuals – Regan

4. great idea. Like I said, you can have different people working on the committee, but also having the objective – Sophia

Sub-category: GOOD

1. working as a fourth grade team, but I also like collaborating with the other levels to get new ideas and different perspectives. I like these types of
institutes because we are working together to help our school as a whole as well as improve our own instruction – Laurie

2. great idea as long as that goal is specified like you kind of enunciate it because if you don’t have a goal, something to focus on, that’s when conversations go all over the place – Darla

3. good. I enjoyed working with the group – Heather

4. all have one goal and we are supporting each other. – Lindsey

5. it needs to be a specified, common goal. If there wasn’t a goal in place it would be more difficult – Morgan

6. good. You have to work as a group. If you have a common goal, the more people involved the more you would see getting done – Silvia

Sub-category: HELPFUL

1. helpful. I like it. Getting to hear everyone’s opinions and ideas and kind of get to see everything from a different point of view – Laura

2. you’re working together you’re going to learn things from other people – Paige

Sub-category: BENEFICIAL

1. beneficial because I’m so new and a lot of the other teachers have been here and worked with a lot of curriculums, different supplementary things – Bella

2. being a new teacher. I want some input from different teachers, new perspectives even if it’s not what I’m going to do at least it gives me multiple ideas – Craig

Sub-category: LIKE

1. like that because it felt like you knew where you were headed and we were all on the same page – Paula

Sub-category: MORE REALISTIC

1. more realistic if you have a specified common goal then you’re meetings would be more productive – Suzy
**Interview #3 Question 3**

**Category: PLEASANT THOUGHTS**

**Sub-category: GREAT**

5. great! I am all for that. I think that just like we did it helps – Heidi (Literacy Gurus)

6. great resource to have. To have lots of people and they volunteered for which group they wanted to be at; actually invested into it – Kendall (Dream Team)

7. great talking about the ideas to get a final decision takes the stress off of one or two individuals – Regan (Party Planners)

8. great idea. Like I said, you can have different people working on the committee, but also having the objective – Sophia (Party Planners)

**Sub-category: GOOD**

7. working as a fourth grade team, but I also like collaborating with the other levels to get new ideas and different perspectives. I like these types of institutes because we are working together to help our school as a whole as well as improve our own instruction – Laurie (Literacy Gurus)

8. great idea as long as that goal is specified like you kind of enunciate it because if you don’t have a goal, something to focus on, that’s when conversations go all over the place – Diana (Party Planners)

9. good. I enjoyed working with the group – Heather (Party Planners)

10. all have one goal and we are supporting each other. – Lindsey (Dream Team)

11. it needs to be a specified, common goal. If there wasn’t a goal in place it would be more difficult – Morgan (Dream Team)

12. good. You have to work as a group. If you have a common goal, the more people involved the more you would see getting done – Silvia (Literacy Gurus)

**Sub-category: HELPFUL**

3. helpful. I like it. Getting to hear everyone’s opinions and ideas and kind of get to see everything from a different point of view – Laura (Party Planners)
4. you’re working together you’re going to learn things from other people – Paige (Dream Team)

Sub-category: BENEFICIAL
3. beneficial because I’m so new and a lot of the other teachers have been here and worked with a lot of curriculums, different supplementary things – Laurie (Literacy Gurus)
4. being a new teacher. I want some input from different teachers, new perspectives even if it’s not what I’m going to do at least it gives me multiple ideas – Craig (Literacy Gurus)

Sub-category: LIKE
2. like that because it felt like you knew where you were headed and we were all on the same page – Paula (Literacy Gurus)

Sub-category: MORE REALISTIC
2. more realistic if you have a specified common goal then you’re meetings would be more productive – Suzy (Dream Team)

Interview #3 Question 3
Category: POSITIVE IMPACT

Sub-category: NOT SIT AND GET
1. new outlook on professional learning, that it doesn’t always have to be the same professional learning group where we sit and have someone lecturing us – Kendall (Dream Team)
2. opened my mind to different ideas, like not just sitting there and listening to an entire presentation – Regan (Party Planners)
3. I would rather do what we did this year meeting as a group and learning together than doing our own thing or having a presenter – Silvia (Literacy Gurus)

Sub-category: SCHEDULING TIME TO COLLABORATE
1. think we all have good things to share, we just don’t always take the time to do that – Morgan (Dream Team)
2. nice to just have that time to understand that when you can work cross curricular you can get more accomplished – Suzy (Dream Team)

Sub-category: ENCOURAGING COLLABORATION AMONG TEACHERS

1. like this version because we were able to discuss the items in smaller manageable pieces – Laurie (Literacy Gurus)
2. I like how we met as a school because I go to those outside things I don’t really get to meet with teachers I work with every day – Bella (Dream Team)
3. made me more active. It almost forced me to get new ideas because I am listening to other people; made me learn – Craig (Literacy Gurus)
4. it is nice to get ideas from each other. I think that a lot of us forget that we are each other’s best resource – Diana (Party Planners)
5. think just think working with other teachers – Heather (Party Planners)
6. liked the idea of being able to do in your classroom, like a five our day. Having meeting after school rather than sitting in a seminar it might not relate exactly to you – Laura (Party Planners)

Sub-category: OVERALL

1. It just brought a whole new different attitude and feeling or aura to our school. – Heidi (Literacy Gurus)
2. believed that we could learn from one another, but what I didn’t realize even the small amount of time we had we learned so much – Lindsey (Dream Team)
3. like working with other teachers and so I thought that felt good to work with other teachers instead of always just being told by administrators here’s this or do this – Paula (Literacy Gurus)
4. think we need more time for teacher lead things like this – Sophia (Literacy Gurus)