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Educating Our Educators: How Teachers Understand Themselves as Adult Learners and Perceive Their Professional Learning Experiences

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EDUCATING OUR EDUCATORS: HOW TEACHERS UNDERSTAND THEMSELVES AS ADULT LEARNERS AND PERCEIVE THEIR PROFESSIONAL LEARNING EXPERIENCES

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Approval Page

This dissertation was submitted by Desirae Khampanya under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

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This study investigated how teachers understand themselves as adult learners and perceive their professional learning experiences within a rural school district in North Carolina. This study was a replication of Fitzgerald's (2014) dissertation and sought to extend the generalizability of the original study. An explanatory mixed-methods design was used, and the two sources of data collected included an online survey and virtual interviews. The results from this study indicated that almost all participating teachers learned best when the core adult learning principles (Knowles, Holton, & Swanson, 2015) were applied to their professional learning experiences, but less than half of those teachers reported that their professional learning embedded these principles frequently. Furthermore, one third of the teachers reported they were infrequently experiencing job-embedded professional learning formats. The researcher recommended educational leaders and facilitators of professional learning design and implement more professional learning opportunities and job-embedded professional learning formats that embed the core adult learning principles.

Keywords: adult learners, professional learning, job-embedded professional learning, teacher perceptions, professional development

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Chapter 1: Introduction

To establish effective schools, educators must be unceasingly motivated to work towards greatness (Collins, 2005). Greatness, as asserted by Collins (2005), is derived from the successes and achievements of students and "is an inherently dynamic process, not an end point" (p. 9). In an ever-evolving world, educators must constantly work to adapt and improve practice to achieve greatness within schools. Adaptation can only occur through the constant monitoring of outputs; therefore, continuously collecting and analyzing data are paramount to the success of improving schools (Friedman & Mandelbaum, 2011).

Since the 2013-2014 school year, school performance grades have been in effect for schools in North Carolina. The grades are based on student achievement (80%) and growth (20%). Figure 1 illustrates the performance grades by all schools in North Carolina for the 2017-2018 school year.

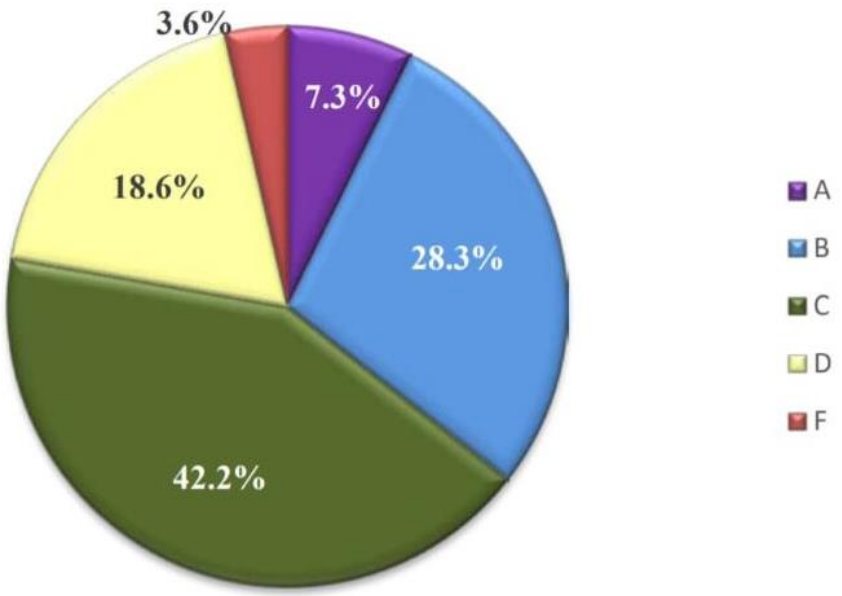

Figure 1. Performance grades by all schools. This figure illustrates the performance grades of North Carolina for the 2017-2018 school year (NC Public Schools, 2018, p. 9).

As shown in this data, the majority of all schools in North Carolina received a C performance grade. In response, school districts across the state are working to improve student achievement and the letter grades associated with their schools (NC Public Schools, 2018).

Analyzing student and organizational data to identify strengths and areas for needed improvement can aid in the process of making a good school better. While a widely accepted ideal among schools and districts, the continuous process for identifying needs and making improvements can require a great deal of time and dedication. Collins (2005) stated,

> In building a great institution, there is no single defining action, no grand program, no one killer innovation, no solitary lucky break, no miracle moment. Rather, our research showed that it feels like turning a giant, heavy flywheel. Pushing with great effort—days, weeks, and months of work, with almost imperceptible progress—you finally get the flywheel to inch forward. (p. 23)

In other words, change occurs as a process, not an event (Hall & Hord, 2015).

Professional learning plays a critical role within the change process. Research reveals a direct relationship between professional learning and student achievement (Learning Forward, 2011). Professional learning promotes the advancement of teacher knowledge, skills, and instructional practices. When educator practice improves, students are more likely to achieve academic success. Providing effective professional learning opportunities to teachers is a key strategy in making school and district-wide improvements towards increased student success. Figure 2 displays the relationship between professional learning and student achievement.

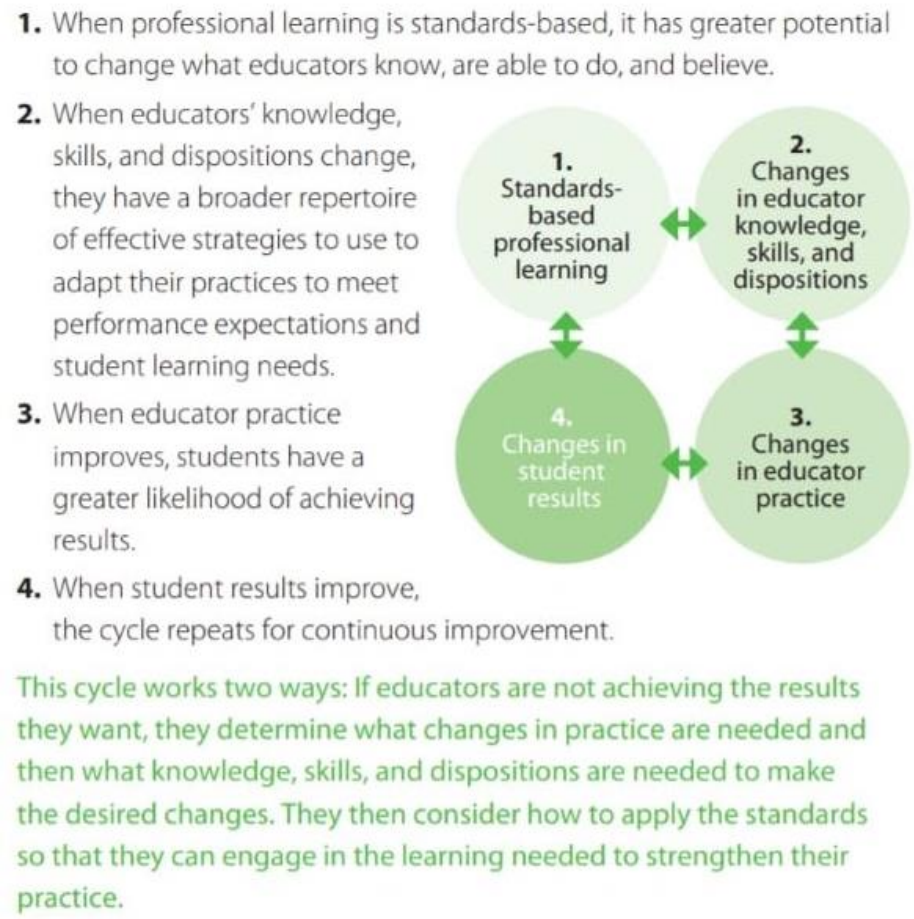

Figure 2. Professional learning and student achievement relationship. This figure illustrates the cyclical relationship between professional learning and student results (Learning Forward, 2011, p. 2).

Statement of the Problem

The various modes of professional learning have yet to resolve all deficiencies in instructional practice and student achievement and, therefore, remain necessary. All teachers in North Carolina participate in professional learning opportunities intentionally designed to increase their effectiveness in the classroom, yet not every student is meeting their achievement goals (NC Public Schools, 2018; NC Report Card, 2018). Consequently, it is imperative for school districts to determine how to best increase

professional learning's effect on educators in order to further advance student learning and achievement (Learning Forward, 2011).

While extensive research is available outlining the key components of effective professional learning within the field of education (Bailey & Jakicic, 2012; Creemers, Kyriakides, & Antoniou, 2013; Darling-Hammond & Falk, 2013; Drago-Severson, 2009; DuFour, DuFour, Eaker, Many, & Mattos, 2016; Graham & Ferriter, 2010; Knowles, Holton, & Swanson, 2015; Learning Forward, 2011; Zepeda, 2015), school districts are still facing the continuous struggle of providing effective learning opportunities relevant to current needs of teachers (North Carolina Teacher Working Conditions Survey [NCTWCS], 2018).

One powerful way for school districts to increase the effect of professional learning is to carefully consider the individuals participating in the learning experiences—teachers. Just as teachers must consider the specific learning needs and styles of their students, district and school leaders must also consider their teachers' diverse needs and how they best acquire and retain knowledge (Drago-Severson, 2009).

According to NCTWCS (2018), only 66.6% of teachers in North Carolina agreed with the statement that professional development was differentiated to meet the individual needs of teachers. Through this survey, many teachers expressed that the professional learning opportunities provided to them were not tailored to meet their specific learning needs. When school districts differentiate learning opportunities to address teachers' specific needs, professional learning becomes more relevant for teachers and, therefore, better received and more effective (Knowles et al., 2015; Zepeda, 2015).

To design effective professional learning opportunities for teachers, districts must first gain insight into how teachers understand themselves as adult learners and perceive their experiences with professional learning (Drago-Severson, 2009; Knowles et al., 2015; Zepeda, 2015). This insight could help guide district and school leaders identify specific areas of need, differentiate professional learning opportunities to strengthen instructional practice, and increase student achievement (Learning Forward, 2011).

Extension of a Previous Study

The conceptual framework, methodology, and research design for this study originated from Fitzgerald's (2014) dissertation, *Urban Secondary School Teachers' Understanding of Themselves as Adult Learners and Their Perceptions of Their Professional Development Experiences.* For this study, the researcher used a form of replication—extending Fitzgerald's study on how teachers understand themselves as adult learners and perceive their professional learning experiences. Replication of a study means the researcher reproduced the original study as closely as possible to see if the results could be further generalized (Laerd, 2012).

The research design guiding this study is explanatory sequential mixed methods. Fitzgerald's (2014) research was conducted to study secondary teachers' understanding of themselves as learners and their perceptions of professional learning experiences. Her research took place in an urban school district within Connecticut. Fitzgerald developed her own survey and interview instruments to answer her research questions.

Using the same conceptual framework and a modified methodology of surveys and follow-up interviews, this research extends Fitzgerald's (2014) study to measure the generalizability of her findings while studying a different population and setting. One of

the limitations of Fitzgerald's study was that it was conducted only among secondary teachers within an urban school district in Connecticut, limiting generalizability of the research. One recommendation Fitzgerald made for future research stated, "other researchers should repeat this study in other school districts with different demographics and in other locations of the state and country" (p. 211). This study responded to Fitzgerald's recommendation as it included all teachers within a rural, public school district in North Carolina. The results of this study were compared to Fitzgerald's research conclusions to determine generalizability.

Theoretical Framework: Andragogy

The theoretical framework guiding this study is based on the work of Malcolm Knowles (1978), referred to as the father of andragogy. Andragogy, the study of adult learning, has been at the foundation of several adult learning theories throughout the last several decades. Researchers have conducted studies to further examine how adults gain new knowledge and transfer their knowledge into skills. While some researchers presented sociologically based critiques of Knowles's study, the idea of andragogy still served as a foundational basis for the development of several other adult learning theories (Sandlin, Wright, & Clark, 2011). Within her research, Fitzgerald (2014) identified four notable examples of adult learning theories derived from Knowles's concept of andragogy. These theories included Knox's (1980) proficiency theory, Brookfield's (1986) critical theory, Mezirow's (1997) transformative learning theory, and Kolb, Boyatzis, and Mainemelis's (2001) experiential learning theory. Each of these theories, based on andragogy, presents an integral contribution to the adult learning theories referenced in today's educational system.

Knox's (1980) proficiency theory. Proficiency theory presumes that when adults are given appropriate opportunities to learn, they will naturally be motivated to improve performance and increase proficiency. An adult must contain the appropriate knowledge, skills, and attitude to become proficient in a learning activity; therefore, adult learners must develop the appropriate skills and strategies that will allow them to increase their proficiency. When opportunities are presented to increase proficiency, adults will be motivated to engage with the learning experience.

Brookfield's (1986) critical theory. Critical theory demonstrates the principles of effective facilitation of adult learning. Within this theory of effective facilitation, the learning facilitator should create a climate of respect and trust to ensure all learners feel supported to openly engage with the material and participate in activities. Facilitation of the learning process should be collaborative in nature between the facilitators and the learners. Collaboration begins with setting the learning goals and continues through the processes of evaluating the learning experiences. Furthermore, effective facilitation includes learners in the continuous cycle of experimentation and critical reflection to support adults in becoming more self-directed in their learning.

Mezirow's (1997) transformative learning theory. Transformative learning theory describes a process in which adults use their prior experiences as a reference point in learning new information. Through transformative learning, adults participate in reflective dialogue that challenges their assumptions and brings to light various perspectives. Within transformative learning, facilitators must establish a climate of trust among learners and provide any information necessary to fill knowledge gaps.

Kolb et al.'s (2001) experiential learning theory. Experiential learning theory

is based on a four-stage learning cycle that includes concrete experience, reflective observation, abstract conceptualization, and active experimentation. Adult learning under this theory begins with a concrete experience with the learning material. From here, the learner reflects on the experience through observation and abstract conceptualization before actively participating in experimentation to further expand their understanding. The effects of the experimentation process support a new concrete experience, beginning the cycle over again. "Learning is a continuous process grounded in experience, which means that all learning can be seen as relearning" (Knowles et al., 2015, p. 179). Figure 3 demonstrates a graphic representation of the cycle associated with experiential learning theory.

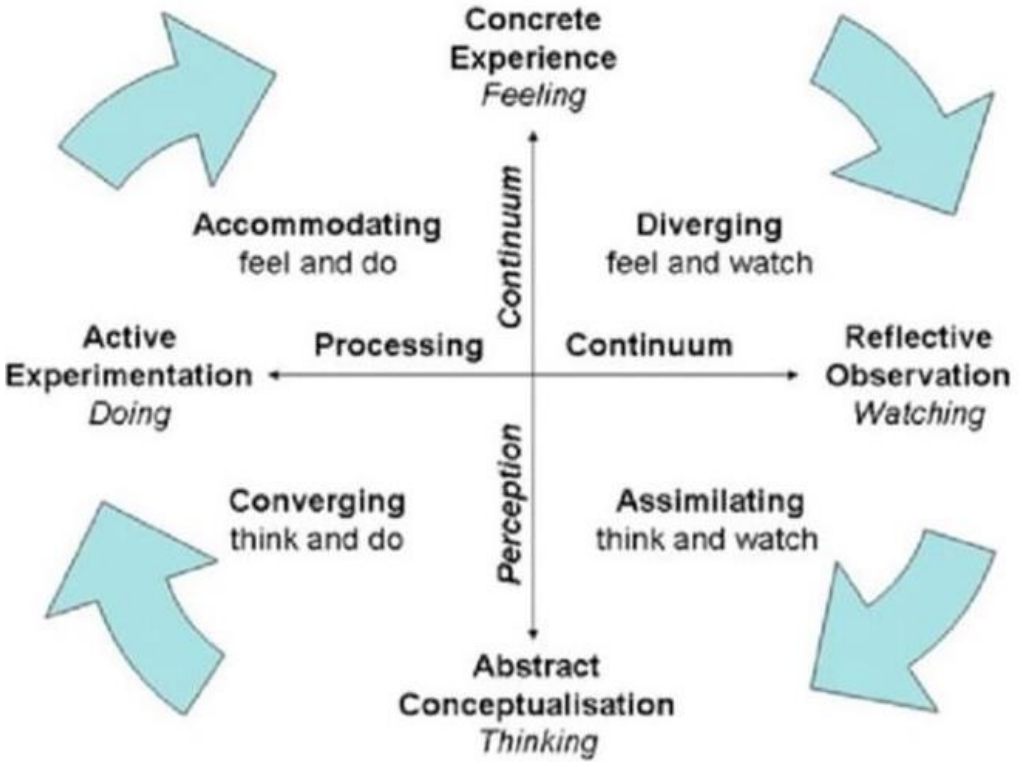

Figure 3. Experiential learning theory cycle. This cycle includes concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb et al., 2001).

Conceptual Framework: The Andragogy in Practice Model

Knowles et al.'s (2015) andragogy in practice model served as the conceptual framework for this study as it addresses the core adult learning principles that are necessary for effective professional learning. The andragogy in practice model (Knowles et al., 2015) focuses on three main components: goals and purposes for learning, individual and situational differences, and andragogy. Within the component of andragogy, six core adult learning principles are included. The six core learning principles are the learner's need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning, and motivation to learn. These six principles provided the foundation for this research study. Figure 4 provides a graphic of the andragogy in practice model.

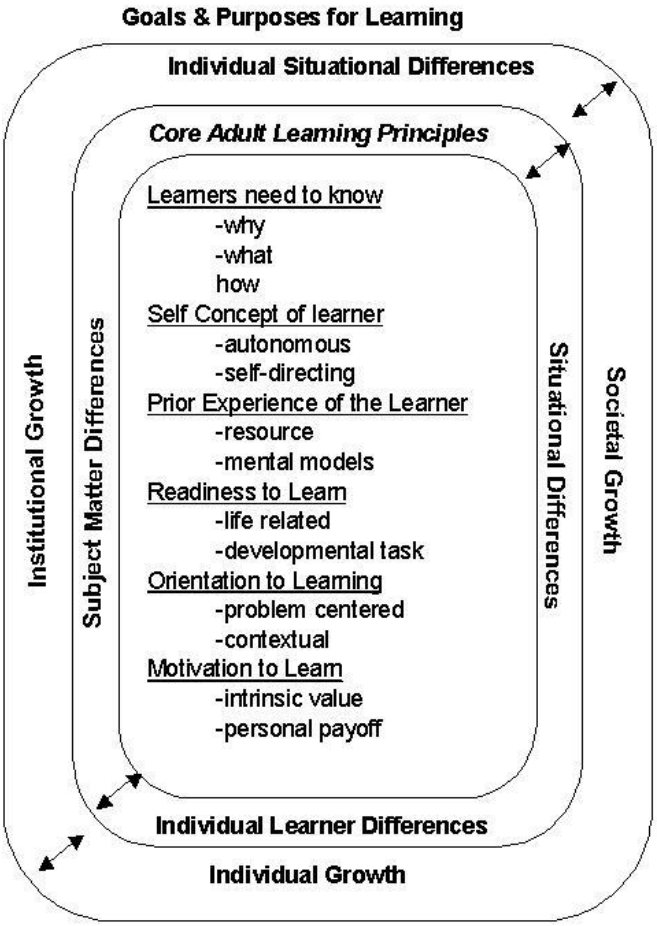

Figure 4. Andragogy in practice model. This figure illustrates the andragogy in practice model (Knowles et al., 2015, p. 80).

Goals and purposes for learning. "The goals and purposes of adult learning serve to shape and mold the learning experience" (Knowles et al., 2015, p. 79). In this section of the andragogy in practice model, the goals for adult learners are described under three categories: individual growth, institutional growth, and societal growth. Because the goals and purposes of learning experiences generally focus on individual growth, andragogy is often strongly associated with individual growth; however, andragogy can also be applied to institutional growth in the sense of human resource

development. "Adult learning is equally powerful in developing better institutions as well as individuals" (Knowles et al., 2015, p. 79). When considering the learning of teachers, there is a strong correlation between effective professional learning and increased student achievement (Learning Forward, 2011). Last, the goals and purposes for learning can also be related to societal growth. As individuals grow, they support the growth of their institutions. As institutions grow, they support the growth of society. In summary, adult learning advances the individual, the institution, and the society (Knowles et al., 2015).

Individual and situational differences. Portrayed as variables, the individual and situational differences that impact adult learning are grouped into three categories: subject-matter differences, situational differences, and individual differences.

Subject-matter differences. Varied subject matter or topics may require the use of different learning strategies. For example, learners are less likely to be successful in learning an unfamiliar, complex skill through a self-directed learning strategy than they would be through a modeling and guiding strategy. Introducing learners to novel content will require different instructional strategies. "Simply, not all subject matter can be taught or learned in the same way" (Knowles et al., 2015, p. 83).

Situational differences. Different learning situations may also require the use of varied learning strategies. There are several influences that could alter a learning situation, such as social, cultural, or situational factors. For example, these influences may affect learners in remote locations, in large groups, or within social contexts developed through life experiences (Knowles et al., 2015); and appropriate instructional strategies to accommodate these situational differences must be considered.

Individual differences. Individual learner differences include cognitive ability, personality, and prior knowledge. "Merely being sensitive to those differences should significantly improve learning" (Knowles et al., 2015, p. 86). Moreover, understanding the nature of the differences allows for more relevant adaptions to be made to suit the needs of the learners (Knowles et al., 2015).

Andragogy: Core adult learning principles. Knowles et al. (2015) presented six core adult learning principles as they relate to andragogy: need to know, self-concept, prior experience, readiness to learn, orientation to learning, and motivation to learn. These principles define the ways in which adults experience learning.

Need to know. Before engaging in new learning experiences, most adults prefer to know why they need to know the information or develop the skill. Understanding relevancy and how the benefits of learning outweigh the investment of time and effort is an important principle in adult learning. Furthermore, many adult learners also want clarification on what they will be learning and how learning will be achieved before they are ready to commit to the learning process. Adults prefer to understand the why, what, and how of the learning process before any learning occurs.

Self-concept. Whereas children display a self-concept of dependence, most adults have a self-concept of independence and strive to take responsibility for their own decisions (Knowles et al., 2015). As learners, many adults resent learning situations in which they lack autonomy of what they will learn and how they will learn it. Adults prefer the opportunity to take ownership of their growth and learning and be offered new information through collaborative facilitation in which learning takes a more self-directed approach.

Prior experience. Adults approach new learning opportunities with a range of prior knowledge and experiences. Previous experience and methods of learning can either enhance or obstruct new learning (Knowles et al., 2015). Adults can either activate prior knowledge to support their learning or they may reject new concepts that contradict their ways of thinking. Adults must engage in critical reflection to explore their biases and misconceptions to allow prior experiences to supplement new learning experiences.

Readiness to learn. Relevancy and necessity are two components of acquiring new information that promote adult readiness to learn. Adults become ready to learn when they experience situational or performance needs. Sometimes, adults do not become ready to learn on their own. Rather, some adults only show an increased readiness to learn after being exposed to increased performance expectations or exemplary practices of others (Knowles et al., 2015).

Orientation to learning. Adults approach learning from either a life-centered, problem-centered, or task-centered perspective. "Adults are motivated to learn to the extent that they perceive that learning will help them perform tasks or deal with problems they confront in their life situations" (Knowles et al., 2015, p. 46). Presenting information to adults in real-life scenarios most effectively promotes the learning of new information, skills, values, and attitudes.

Motivation to learn. Adult learners are more motivated by intrinsic motivators than extrinsic motivators. Adults present higher levels of motivation by internal motivators such as job satisfaction, self-esteem, and quality of life. Lower levels of motivation are prompted by external motivators such as higher salaries and job promotions.

Research Questions

Based on Fitzgerald's (2014) mixed-methods research, the following research questions guided this replication study:

1. How do teachers understand themselves as adult learners?
2. What are teacher perceptions of having experienced professional learning in a school district that embeds the core adult learning principles?
3. What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district?
4. What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district?

Definition of Key Terms

Fitzgerald (2014) presented four key terms that applied directly to her study. As this research replicated her study through extension, the same key terms applied to this study; however, the researcher created new definitions based on the specific research utilized within this study. It should be noted that where Fitzgerald used the term *professional development* to describe professional learning experiences, this study primarily uses the term *professional learning*. This slight variation in terminology was made by the researcher to coincide with the language presented in the Standards for Professional Learning (Learning Forward, 2011); however, the researcher synonymously used both terms when citing information presented from other researchers who used the term professional development in their work. Furthermore, the survey and interview instruments for this study used the term professional development because this is the terminology most commonly used among teachers within North Carolina and the district

of study. The definitions of key terms for this study are as follows:

Adult learners. People over the age of 18 participating in a learning experience, formally or informally, are adult learners (Drago-Severson, 2009).

Core adult learning principles. The six learning principles of andragogy include the learner's need to know, self-concept, prior experience, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2015).

Professional learning experiences. Also referred to as professional development, professional learning experiences are designed to advance knowledge, skills, and dispositions to increase educator effectiveness. Effective strategies for implementation include collaboration, relevancy, application, self-assessment, problem-solving tasks, and reflection (DuFour, 2004).

Job-embedded professional learning formats. These professional learning formats occur when learning is presented to educators within a school or classroom during regular working hours. These formats focus on the differentiated needs of teachers and support the improvement of specific instructional practices (Zepeda, 2015).

Significance of Study

As Fitzgerald (2014) addressed, this study was significant in adding to educational research for four main reasons.

First, this study extended the existing knowledge of professional learning for teachers. Studies on professional learning in schools had been primarily conducted using quantitative survey methods (Desimone, Porter, Garet, Yoon, & Birman, 2002; Dunaway, Do-Hong, & Sand, 2010; Dunst & Raab, 2010; Garet, Porter, Desimone, Birman, & Yoon, 2001). Few studies had investigated professional learning using quantitative

survey methods while also incorporating the use of qualitative interviews (Engstrom & Danielson, 2006; Horn & Little, 2010). Fitzgerald's (2014) study addressed the methodological gap in research by utilizing both quantitative and qualitative methods. This replication study further addressed this gap by providing generalizability to the results of her study.

Second, this study extended the existing knowledge of job-embedded professional learning applied within schools. Very little research had been conducted on teacher perceptions of their experiences with job-embedded professional learning formats. Additionally, most of the research (Angelides & Mylordou, 2011; Chong & Kong, 2012; Curry, 2008; Dunaway et al., 2010; Fazio, 2009; Kazemi & Franke, 2004; Kensler, Reames, Murray, & Patrick, 2012; Luna et al., 2004; Sherin & Han, 2004; Slater & Simmons, 2001; Snow-Gerono, 2005; Tucker, Stronge, Gareis, & Beers, 2003) conducted in this area focused only on one specific format of job-embedded professional learning rather than the practice as a whole. Fitzgerald's (2014) research helped to address these gaps present in this area of research, and this replication study added to the knowledge base by assessing the generalizability of her results.

Third, this study was significant because of the population being studied. Fitzgerald (2014) found that previous studies (Chong & Kong, 2012; Curry, 2008; Fazio, 2009; Kensler et al., 2012; Luna et al., 2004; Sherin & Han, 2004; Slater & Simmons, 2001) on job-embedded professional learning formats did not specifically focus on urban, secondary school teachers. Furthermore, no research was found that has been conducted on this topic across various populations and settings. In response to Fitzgerald's recommendation "to repeat this study in other school districts with different

demographics and in other locations of the state and country" (p. 211), this research shed light on all teachers within a rural North Carolina district and allowed their perceptions of job-embedded learning to be shared. The results from this study were compared to Fitzgerald's research conclusions to measure generalizability.

Finally, the replication of research may help guide district and school leaders in designing and implementing effective professional learning opportunities that best meet the learning needs of their teachers. As educators continue to adapt to the ever-changing field of education, there is a great need for effective professional learning. District and school leaders can improve the design and implementation of professional learning experiences by considering the needs of teachers as adult learners and their perceptions of learning experiences (Zepeda, 2015).

Summary of Chapter

This chapter introduced the dissertation by reviewing the cyclical relationship between professional learning and student achievement and the need to differentiate learning for teachers to provide effective learning experiences. The chapter stated the problem, presented the plan for extension of a previous study, listed the key terms of the document and the guiding research questions, and provided four areas of significance for the study.

As the document continues, this dissertation presents a description of research designed to explore teacher understandings of themselves as adult learners and their perceptions of professional learning experiences within a rural North Carolina school district. Professional learning is closely tied with student learning and achievement; therefore, understanding and implementing effective professional learning experiences

for teachers is a priority among school districts. Extending Fitzgerald's (2014) research, this study served to measure the generalizability of the results from the original study while using the population and context-driven extensions as well as method and measurement-driven extensions (Laerd, 2012). The results of this study were also compared to Fitzgerald's research conclusions. The theoretical framework guiding this study was based on Knowles's (1978) theory of andragogy, and the conceptual framework was centered around the andragogy in practice model (Knowles et al., 2015). Chapter 2 provides an overview of research literature associated with the principles of adult learning and effective professional learning formats that support student achievement.

Chapter 2: Literature Review

In order to fully understand how teachers understand themselves as adult learners and perceive their professional learning experiences, an examination of how adults learn and effective professional learning practices is appropriate. This review of the literature first addresses the pillar practices to support adult learning as informed by constructive-developmental theory (Kegan, 1982). Further, the review will address different ways of knowing as related to adult learners.

Next, the literature review analyzes the characteristics of effective professional learning within education. The Standards for Professional Learning are reviewed to further explain the components necessary for effective professional learning. Finally, a review of job-embedded professional learning and its formats within schools are examined.

Constructive-Developmental Theory

Kegan's (1982) constructive-developmental theory described "how differences in our behaviors, feelings, and thinking are often related to differences in how we *construct*, or make meaning of, our experiences" (Drago-Severson, 2009, p. 24). This theory also helped to explain why adults have different needs and developmental capacities. When leaders understand the key principles of the constructive-developmental theory, they will understand how to make growth possible through appropriate supports and challenges. This theory informs four pillar practices for leaders to differentiate learning to meet the needs of adults.

Pillar Practices to Support Adult Learning

Drago-Severson (2009) presented four pillar practices in supporting adult

learning. The pillar practices include teaming, providing leadership roles, collegial inquiry, and mentoring. Teaming, the first pillar practice, occurs when adults help each other through the exchange of ideas and sharing of decision-making responsibilities (Drago-Severson, 2009). "Teaming creates opportunities for group and individual reflection, reduces isolation, engenders innovation, builds capacity, and knowledge-based management systems" (Drago-Severson, 2009, p. 73). Establishing effective teams among teachers supports collaboration and critical reflective practices to increase student learning. Drago-Severson discussed key elements of successful teaming for educational leaders to consider. These elements included allocating time, clarifying the purpose, developing norms, creating "SMART goals: Strategic and specific, Measurable, Attainable, Results-oriented, and Time bound" (DuFour, 2009, p. 77), and using feedback to make improvements. To support effective teaming, it is important for district and school leaders to assist teachers in developing skills such as "active listening, setting aside assumptions while in conversation, and trying to understand each other's comments and making meaning of them" (Hall & Hord, 2015, p. 172). Furthermore, leaders must nurture a warm, trusting environment conducive to sustained conversations and growth (Hall & Hord, 2015).

The second pillar practice of leading adult learning involves school leaders providing leadership roles to teachers. They should encourage teachers to take on leadership roles within their schools as a way to contribute to the overall success of student learning. Teachers engaging in leadership roles must have the ability to build relationships and collaborate with other teachers, the capacity to drive others to assist in the goal of improving the learning of all students, and the ability to encourage others to

collaborate and share ideas to improve instructional practice in all classrooms (Drago-Severson, 2009). There are several leadership roles that teachers can assume within their schools. Examples include a resource provider, instructional specialist, curriculum specialist, learning facilitator, mentor, and catalyst for change.

The third pillar practice Drago-Severson (2009) discussed is collegial inquiry. Collegial inquiry refers to the ways in which school communities and systems engage in collaborative reflective practice where a dialogue takes place between multiple people. Collegial inquiry gives educators the "opportunity to become aware of their own and other's thinking and assumptions" (Drago-Severson, 2009, p. 155). This awareness allows educators to better understand their behaviors and make growth as individual and collective professionals, which in the end leads to increased student learning. Collegial inquiry is a practice most easily adopted by schools possessing a collaborative culture; however, establishing a norm for collegial inquiry can also help to improve a school's culture to become more collaborative over time (Drago-Severson, 2009; Gruenert & Whitaker, 2015). Killion (2002) advocated for "structuring staff development experiences to encourage teachers to analyze their practices and share what they have learned with colleagues," since she believed that doing so would "increase collaboration, commitment to implementing alternative strategies, and build teachers' knowledge about research-based teaching" (p. 158).

Collegial inquiry supports teachers in identifying and differentiating student learning needs as well as promotes reflective dialogue to guide data-driven instructional practices. There are four central reasons for school leaders to provide opportunities for collegial inquiry within their schools among teachers. First, collegial inquiry helps

school leaders to include others in leadership roles and responsibilities. It also allows educators of diverse backgrounds and perspectives to learn from each other and build relationships. Additionally, it promotes a broad approach to learning, from the individual and across the organization. Finally, collegial inquiry supports adults through change and difficulty (Drago-Severson, 2009).

The fourth pillar practice is mentoring. Mentoring involves a relationship in which one educator advises or trains another educator. "Mentoring creates an opportunity for adults to broaden perspectives, examine assumptions and beliefs, and share expertise toward supporting growth" (Drago-Severson, 2009, p. 26). Mentoring relationships can include the pairing of experienced teachers with new teachers, knowledgeable teachers with less knowledgeable teachers (regarding a certain content or skill), or supervisors with teachers (Drago-Severson, 2009). These four pillar practices (teaming, providing leadership roles, collegial inquiry, and mentoring) support the various ways in which adults learn and perceive experiences.

Ways of Knowing

Drago-Severson (2009) also discussed the various ways of knowing present among adult learners. The different ways of knowing are described as the "developmental levels that profoundly affect how we as human beings make meaning of experiences and dictates how we make sense of reality" (Drago-Severson, 2009, p. 39). Drago-Severson discussed four ways of knowing—instrumental, socializing, self-authoring, and self-transforming—and included ideas about how educators can challenge others as learners and support growth. Figure 5 describes the four ways of knowing as outlined by Drago-Severson.

	Supports	Challenges (Growing Edge)
The Instrumental Way of Knowing ***"Rule-Bound Self"***	·Set clear goals and expectations. ·Provide step-by-step procedures for dialogue and working with other colleagues. ·Share examples of rules, purposes, and goals—and how to share them with others. ·Engage in dialogue that provides specific advice, skills, and information about practice.	·Provide opportunities to learn about multiple perspectives through dialogue. ·Create tasks that demand abstract thinking and scaffolding knower through the process. ·Encourage movement beyond "correct" solutions and toward other perspectives. ·Discuss how multiple perspectives could build abstract thinking and increase perspective broadening.
The Socializing Way of Knowing ***"Other-Focused Self"***	·Ensure that learner feels known and accepted. ·Beliefs are confirmed by authorities. ·Supervisors are valued colleagues and/or loved ones show acceptance. ·Provide opportunities to share perspectives in pairs or smaller groups before sharing with larger groups. ·Ensure that interpersonal relationships are not jeopardized when differences of opinions arise.	·Provide opportunities to develop own beliefs, becoming less dependent on others' approval. ·Encourage this knower to construct own values and standards, not co-construct them. ·Support the acceptance of conflicting points of view without feeling threatened. ·Support this knower in separating own feelings and responsibilities from another person's.
The Self-Authoring Way of Knowing ***"Reflective Self"***	·Provide opportunities to learn about diverse points of view. ·Provide opportunities to analyze and critique ideas and explore own goals. ·Ensure that learning from the process takes place. ·Support learning about and demonstrating own competencies. ·Emphasize competency. ·Invite demonstration of competencies and dialogue.	·Challenge knower to let go of own perspective and embrace diametrically opposing alternatives. ·Support this knower's acceptance of diverse problem-solving approaches that differ from own. ·Challenge knower to set aside own standards for practice and open up to other values. ·Support critique of own practices and vision.
The Self-Transforming Way of Knowing ***"The Interconnecting Self"***	·Provide opportunities to grow from supporting others and having deepening relationships with self and others, especially in diverse contexts. ·This knower learns, contributes, and grows from self, others, and the larger social system. ·A coach, mentor, guide, and/or system is in place such that deeper meaning can be made in the midst of the complexity to which this learner can respond.	·Someone is present as the person makes sense of the paradoxes of life and the tensions generated by inner contradictions. ·Situations and work involve others with diverse perspectives such that there is an openness to exploring tensions, incongruity, and synergy. ·Offer recognition of the challenge the adult experiences (i.e., that there are limits to what the self can learn and how the self can know, that inspiring a system to transform itself is really tough).

Figure 5. Ways of knowing: Supports and challenges. This figure outlines the supports and challenges that associate with the different ways of knowing (Drago-Severson 2009, pp. 45-51).

It is important for district and school leaders to understand and take into consideration how teachers' ways of knowing may affect their learning experiences. Leaders should also remember that teachers often identify with multiple ways of knowing, sometimes at once, depending on the topic or situation at hand (Drago-Severson, 2009).

Effective Professional Learning

Effective professional learning for teachers begins with priorities set by district leadership. Professional growth experienced by teachers has a direct impact on student skill development (Drago-Severson, 2009); therefore, leaders who are highly effective in supporting teacher growth can also have "a dramatic and positive influence on students' overall academic achievement" (Drago-Severson, 2009, p. 18). Teachers are supported in their professional growth through the implementation of professional learning experiences. Professional learning can be implemented using a variety of development models including training, observation and evaluation, involvement in an improvement process, action research, and mentoring (Drago-Severson, 2009). The exact parameters that describe how the different models of professional learning can be effectively implemented are not clearly defined since there are several ways to put each of these models into practice. Regardless of the variations among the professional learning models, there are common features in each of the approaches that support effective professional learning. The models

> (1) work to link improved instructional practice and student learning, (2) address the needs of student and adult learners, (3) are collaborative and ongoing experiences, (4) create a culture of excellence, and (5) allocate time for reflective

> practice that nurtures learning and application. (Blankstein, Houston, & Cole, 2007, p. 21)

DuFour (2004) described three big ideas related to establishing professional learning opportunities for educators. First, effective professional learning establishes a clear focus on student learning. Educators must consider what they expect students to learn, how they will measure learning, and how they will respond when students struggle or excel (DuFour, 2004). Second, effective professional learning focuses on collaboration. "Educators who are building a professional learning community recognize that they must work together to achieve their collective purpose of learning for all" (DuFour, 2004, p. 8). This idea of a professional learning community (PLC) was expanded upon by Kriete (2013) in his stance that "as a group, we sort the challenges into two categories: things we can affect and things beyond our control. As a PLC, we promise to focus on those things we can positively affect" (p. 2). Last, effective professional learning utilizes the interpretation of student results to make progress. This process establishes the norm of working collaboratively to identify strengths and weaknesses to improve student achievement. "Every teacher team participates in an ongoing process of identifying the current level of student achievement, establishing a goal to improve the current level, working together to achieve that goal, and providing periodic evidence of progress" (DuFour, 2004, p. 9).

Effective district leaders guide school-based leaders, such as principals, in understanding and implementing these three big ideas (DuFour, 2004) within their schools through professional learning. Creating opportunities for reflective dialogue with peers is critical in supporting principal learning (Byrne-Jiménez & Orr, 2007; Donaldson,

2008; Leithwood & Jantzi, 1998; Wagner et al., 2006). The purpose of these opportunities is to allow school leaders to gain new perspectives and challenge their own preconceptions (Drago-Severson, 2009). Exemplary experiences and ideas shared through reflective dialogue can be translated into strategies for principals to use at their school site.

Effective professional learning for teachers is reflective, ongoing, thoughtfully planned, job embedded, and focused on student learning (Bailey & Jakicic, 2012; Drago-Severson, 2009; Zepeda, 2015). School leaders who understand the necessary facets of effective PLCs can nurture teacher growth and expertise.

> By carefully developing expertise in all corners of a building, leaders accomplish two goals. First, they increase the chances that other staff members will be able to successfully put PLC principles into practice; and second, they create fertile ground for professional conversations. (Graham & Ferriter, 2010, p. 13)

To begin the process of establishing effective PLCs, school leaders should consider strategies such as communicating a common definition and vision of PLCs, assisting in the development of PLC norms and structures, and implementing the use of a structured agenda format (Graham & Ferriter, 2010). These strategies could help to create a shared vision of effective PLCs as well as ensuring commitment and accountability from teachers (Learning Forward, 2011).

Research suggests that when teachers develop a strong understanding of effective PLCs and establish norms for team meetings using a structured agenda format, they are more likely to analyze and use data to support student learning (Bailey & Jakicic, 2012; Graham & Ferriter, 2010). Stiggins (2005) explained,

> To the extent that we team to (1) analyze, understand, and deconstruct standards, (2) transform them into high-quality classroom assessments, and (3) share and interpret results together, we benefit from the union of our wisdom about how to help our students continue to grow as learners. (p. 82)

Analyzing student data allows educators to identify areas of need in which students require more instructional support and areas of strength in which students would benefit from extension activities. When teachers analyze and interpret student data as a team, they can share their experiences with successful instructional practices across the grade level, the school, or beyond. When teachers share practices that may be responsible for higher achievement among their students, it could help to increase student achievement within other classrooms as well (Graham & Ferriter, 2010).

Standards for Professional Learning

Learning Forward (2011), in conjunction with 40 other professional and educational organizations, developed the Standards for Professional Learning. The Standards for Professional Learning describe a set of expectations for effective professional learning that supports educators in developing the knowledge, skills, and practices to help students achieve at high levels. The standards also increase equity of access to high-quality education for every student, despite the advantages or disadvantages of schools and communities (Learning Forward, 2011). Several states, such as Arkansas, Florida, and New Jersey, have shown improvements in the quality of professional learning since adopting the standards from Learning Forward. The North Carolina State Board of Education endorsed the standards in October 2011, and districts across the state use them to guide the development of professional learning experiences

(Professional Development, n.d.).

Learning Forward (2011) continuously examines and updates the standards to reflect insight gained from current research about professional learning. For example, in 2001, the standards were referred to as the Standards for Staff Development but were changed in 2011 to the Standards for Professional Learning. The rationale for this change was due to the perception that professional development practices treated educators as passive recipients of information. Professional learning, on the other hand, is meant to express the importance of educators taking an active role in their learning (Learning Forward, 2011).

The standards are an important reference for educational leaders when considering which strategies to employ to support effective professional learning. The standards outline the essential elements required for effective professional learning to take place within an educational system. Figure 6 provides a list and description of each standard.

1. Learning Communities
Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.

2. Leadership
Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.

3. Resources
Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning.

4. Data
Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.

5. Learning Designs
Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcome.

6. Implementation
Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change.

7. Outcomes
Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performance and student curriculum standards.

Figure 6. Standards for professional learning. This figure lists and describes the standards (Learning Forward, 2011).

Highlighting one standard to serve as a demonstration of the standards' relevancy to effective professional learning, standard one focuses on learning communities. The standard states, "professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment" (Learning Forward, 2011, "Learning Communities"). This standard directly correlates with the six elements Hall and Hord (2015) associated with effective PLCs. The six elements include shared values and vision, intentional collective learning and application, supportive and shared leadership, structural conditions, relational conditions, and shared personal practice (Hall & Hord, 2015). The Standards for Professional Learning can be utilized in district-wide

learning initiatives as well as in job-embedded professional learning formats within individual school sites. District and school leaders should use the standards as a guideline to promote effective professional learning among teachers (Learning Forward, 2011).

Linking Professional Learning Opportunities with Adult Learning Strategies

District and school leaders can incorporate adult learning strategies to promote effective professional learning experiences. Zepeda (2015) examined the principles of adult learning along with the strategies that promote effective learning experiences for adults. Some of the core principles of adult learning include self-direction, relevancy, prior experiences, readiness to learn, and motivation to learn. Adult learning is often self-directed, where adults take initiative and are driven to share information with others. A strategy to engage learners under the self-direction principle is to make learning an interactive process. Adults seek knowledge that is relevant to their current life situation, and they want to know how this new information will help them in their development. A strategy to engage learners under the relevancy principle is to provide hands-on and real-life learning experiences. Adults' prior experiences in life shape their readiness for learning. A strategy to engage learners under the prior experience principle is to employ new ideas or strategies while also connecting to the learners' prior experiences. Adults have varying levels of readiness to learn. A strategy to engage learners under the readiness to learn principle is to give adult learners opportunities to apply new knowledge to what they already know. Adults who voluntarily attend learning opportunities are typically those who have the motivation to learn. Strategies to engage learners under the motivation principle include be aware of the diversity among the group and accommodate

the different learning styles; allow learners the opportunity to reflect, analyze, and practice what they have learned; and give adults as much control as possible about what they learn and how they learn (Zepeda, 2015).

Job-Embedded Professional Learning

Professional learning within education serves to support the effectiveness of teachers and the success of students (Zepeda, 2015). In today's schools, teachers are tasked with constantly adapting to new curricula and instructional practices to best meet the needs of students. Teachers primarily make sense of these adaptations during the workday through modes of trial and error, conversation, and reflection on previous experiences; therefore, school and district leaders should support teachers in relevant, differentiated learning on the job rather than relying on one-size-fits-all professional learning opportunities that occur outside of work hours (Zepeda, 2015).

Job-embedded professional learning occurs during the workday and is related to site-specific concerns. "Job-embedded learning occurs in the context of the job setting and is related to what people learn and share about their experiences, reflecting on specific work incidents to uncover newer understandings or changes in practices or beliefs" (Zepeda, 2015, p. 3). As opposed to the sit-and-get method, job-embedded professional learning is most effective when teachers play the role of an action researcher, participate in collaborative and critical reflection, and are provided differentiated support with their instructional practices (Zepeda, 2015). Sharing resources and the ongoing discussions between colleagues about best practices are integral components of job-embedded learning.

Research (Creemers et al., 2013; Darling-Hammond & Falk, 2013; Zepeda, 2015)

supports the idea that effective job-embedded professional learning occurs when educators are provided appropriate, differentiated coaching and the opportunity to collaborate with colleagues about matters such as student work and common assessment. School culture also plays a direct role in the success of job-embedded professional learning and student achievement. Hall and Hord (2015) maintained that "the culture in which organizations function, whether they are public sector schools, private corporate entities, or others, has a profound influence on the individual in the organization and on his or her individual and collective productivity" (p. 160). A culture of collaboration supports effective job-embedded learning.

Job-Embedded Professional Learning Formats

Croft, Coggshall, Dolan, Powers, and Killion (2010) defined job-embedded professional learning as "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 student learning" (p. 2). Job-embedded professional learning formats are comprised of the following characteristics: active learning, relevant and meaningful instructional strategies, and integrated coaching and modeling with feedback (Croft et al., 2010). Job-embedded professional learning formats can include (a) action research, (b) peer coaching, (c) peer observations, (d) data teams, (e) student work examinations, (f) professional growth plans, (g) lesson studies, (h) mentoring, and (i) PLCs. Each of these job-embedded professional learning formats encompasses adult learning principles described by Knowles et al. (2015).

Action research. Action research is a process of inquiry used to improve or refine practice (Sagor, 2000). "Action research is a collaborative form of job-embedded

professional development, and, in most instances, it unfolds in the context of a classroom, a building, or a school system" (Zepeda, 2015, p. 99). This process can be performed by individual educators or by teams of colleagues, and it focuses primarily on learning in the context of teaching. To conduct action research, teachers participate in the collection and analysis of data. Reflection, a foundational component to action research, guides teachers in taking action, or making a change, based on what they have learned from the action research. Teachers engage in action research to refine skills, improve or develop a practice, or gain a deeper understanding of their students and methodology for instruction. Action research supports teachers as adult learners in making informed decisions for their practice through data collection and analysis, collaboration with peers, and critical reflection. Action research is cyclical in nature. Figure 7 presents a graphic to represent the cyclical nature of action research.

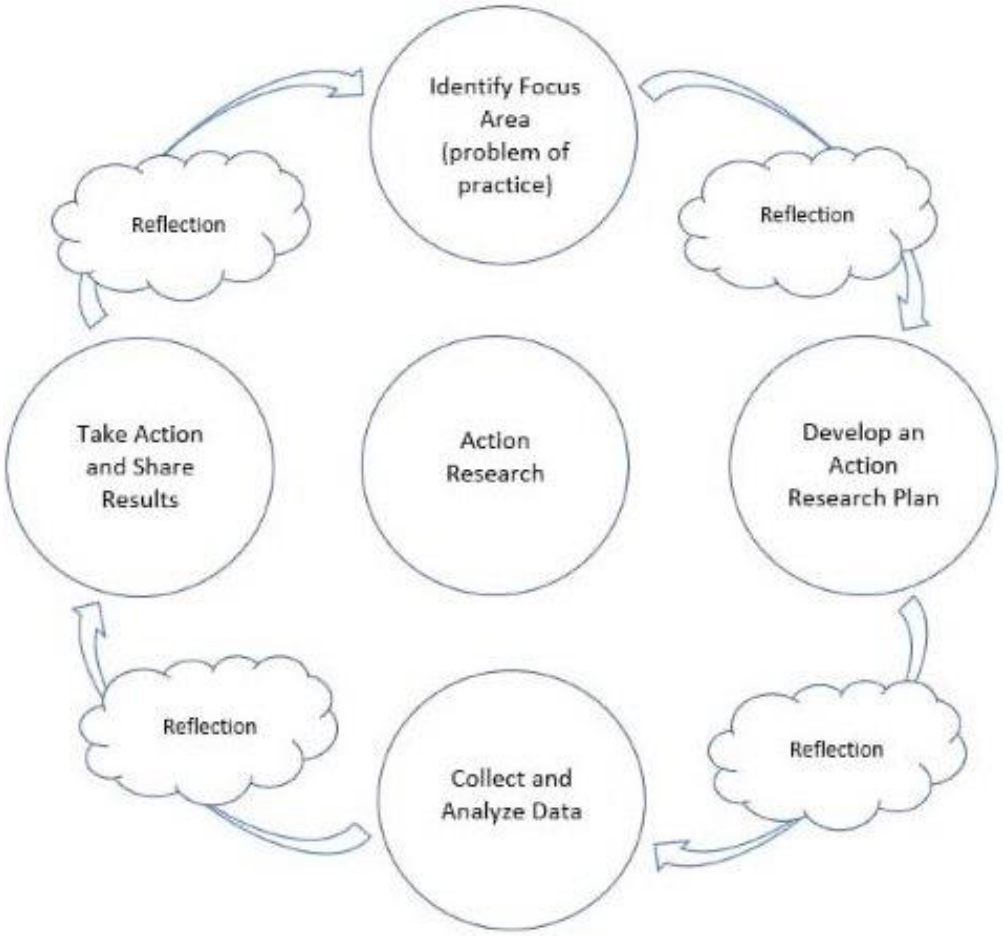

Figure 7. The action research cycle. This figure illustrates the cyclical natures of action research (Zepeda, 2015).

Action research has many benefits. Participation in action research can motivate teachers to learn about a topic of interest, lead to modification in teaching practices, support self-directed learning, encourage collaboration among colleagues, and provide sustained opportunities for teachers to reflect on their practice (Zepeda, 2015).

Peer coaching. Peer coaching, a process in which two or more educators work together to reflect on instructional practices and curriculum, is another example of a job-embedded professional learning format. The reflection that occurs during peer coaching

is intended to expand, refine, and build new skills among teachers through observation and conversational feedback (Robbins, 1991). Peer coaching manifests itself through multiple methods. One method involves a cycle of preconferencing, observing, and postconferencing between two or more teachers. Another method involves collaboration between teachers as they design a unit of study or curriculum. Additionally, one teacher can observe another to provide suggestions. Within each of these methods, teachers engage in self-directed learning as they choose which area of teaching to focus their assistance. Coaching should be differentiated to meet the needs of the individual, based on their experience, maturity, and knowledge. Coaching should also be developmental, job embedded, and incorporative of the principles for how adults learn (Zepeda, 2015). "Effective coaches know when and how to stretch, when and how to challenge, and when and how to guide those whom they are coaching" (Zepeda, 2015, p. 65). Coaches may work with peers through activities such as modeling, demonstrating, facilitating professional learning experiences, sharing research-based practices, or observing practice (Zepeda, 2015). Peer coaching focuses on helping teachers deepen their understanding of content knowledge, see different points of view about instructional strategies, develop problem-solving skills to promote student success, and give or receive useful feedback (Zepeda, 2015). Just as action research functions in a continuous cycle towards improvement, peer coaching is cyclical and collaborative in nature. Figure 8 illustrates the cyclical and collaborative nature of peer coaching.

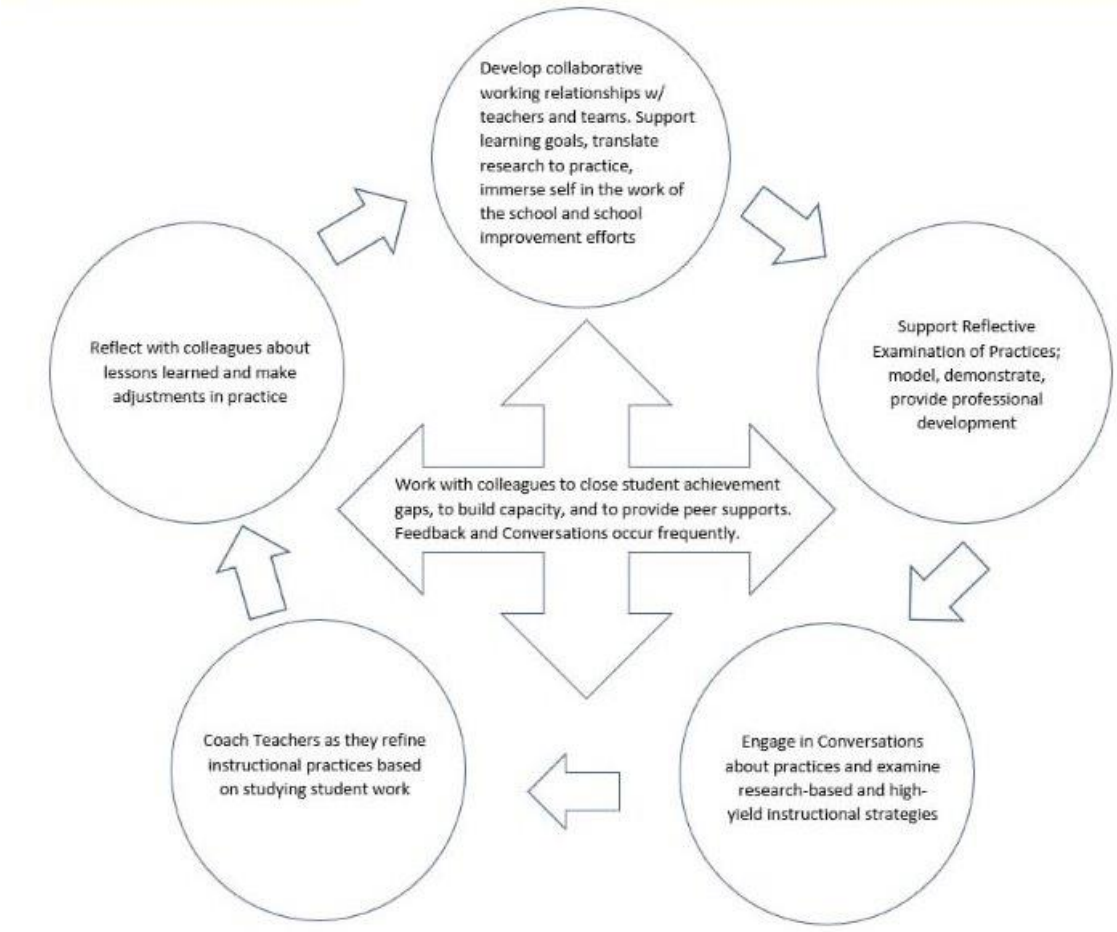

Figure 8. Peer coaching cycle. This figure presents the cyclical and collaborative natures of peer coaching (Zepeda, 2015, p. 66).

Peer observations. Peer observations are another powerful example of a job-embedded professional learning format. Peer observations occur when a colleague observes a classroom in action and then engages in conversation. "Engaging in peer observation signals two-way reciprocal learning for teachers" (Zepeda, 2015, p. 48). Teachers observe other teachers during instruction and participate in conversations about instructional practices. Through these conversations, teachers reflect on their practices and collaboratively develop strategies to promote positive change in their classrooms.

Peer observations

> hold potential to connect peers to the purpose of learning more about their practices, to build system and student capacity while simultaneously supporting the needs of teachers who consistently focus their attention, best interests, and hearts on students and their learning needs. (Zepeda, 2015, p. 48)

Peer observation, a powerful format that supports collaborative conversations among teachers, is integrated within multiple job-embedded professional learning formats such as lesson studies and peer coaching.

Data teams. Data teams are comprised of a group of teachers within a common subject and grade level who participate in a collaborative approach to making data-driven decisions. In serving as a job-embedded professional learning format, a data team works to support teacher understandings of student assessment data in order to create a plan for future instruction. The main purpose of the data team is for teachers to collaboratively make informed decisions about how to bring about change within their classrooms. These decisions are based on the careful analysis of achievement data to identify student areas of need and help teachers to incorporate appropriate instructional approaches to accommodate the needs (Knowles et al., 2015; Zepeda, 2015).

Student work examinations. Similar to the roles of data teams, student work examinations occur when teachers discuss and reflect upon student work to establish a common understanding. Where data teams attend specifically to quantitative analysis of assessments, student work examinations are based on more qualitative analyses of assignments (Croft et al., 2010). Within this job-embedded professional learning format, teachers examine student work, discuss, and problem-solve. Teachers share assignments,

discuss them in context, and offer feedback. The goal of examining student work in this format is to identify strategies to support effective instruction and increase student learning and achievement.

Professional growth plans. A professional growth plan compares to a learning contract that occurs between a teacher and a supervisor, such as a principal. Collaboratively, the teachers and supervisors create an action plan for improvement within a specified time frame. When choosing the area of focus for the growth plan, teachers consider an area in which they would like to grow and make measurable and attainable goals. Throughout the selected time frame, teachers report their progress in achieving the goals to the supervisors. Knowles et al. (2015) emphasized that contract learning was the most powerful tool in adult education. Contract learning solves several problems that can arise in the process of adult learning:

> It solves the problem of the wide range of backgrounds, education, experience, interest, motivations, and abilities that characterize most adult groups by providing a way for individuals (and subgroups) to tailor-make their own learning plans. It solves the problem of getting the learner to have a sense of ownership of the objectives he or she will pursue. It solves the problem of identifying a wide variety of resources so that different learners can go to different resources for learning the same things. It solves the problem of providing each learner with a visible structure for systemizing his or her learning. Finally, it solves the problem of providing systematic procedure for involving the learner responsibly in evaluating the learning outcomes. (Knowles et al., 2015, p. 69)

Contract learning in the form of professional growth plans guide teachers in reflecting

and evaluating their own needs, setting a focus for learning, and working through an action plan to meet specific goals. This job-embedded professional learning format promotes purpose, self-directed learning, and motivation (Knowles et al., 2015; Zepeda, 2015).

Lesson studies. Lesson studies are another job-embedded professional learning format. Within this format, a cyclical process occurs in which teachers collaboratively research and plan, teach, observe, discuss, revise, and reflect on a single lesson. The repetitive cycle is highlighted in Figure 9.

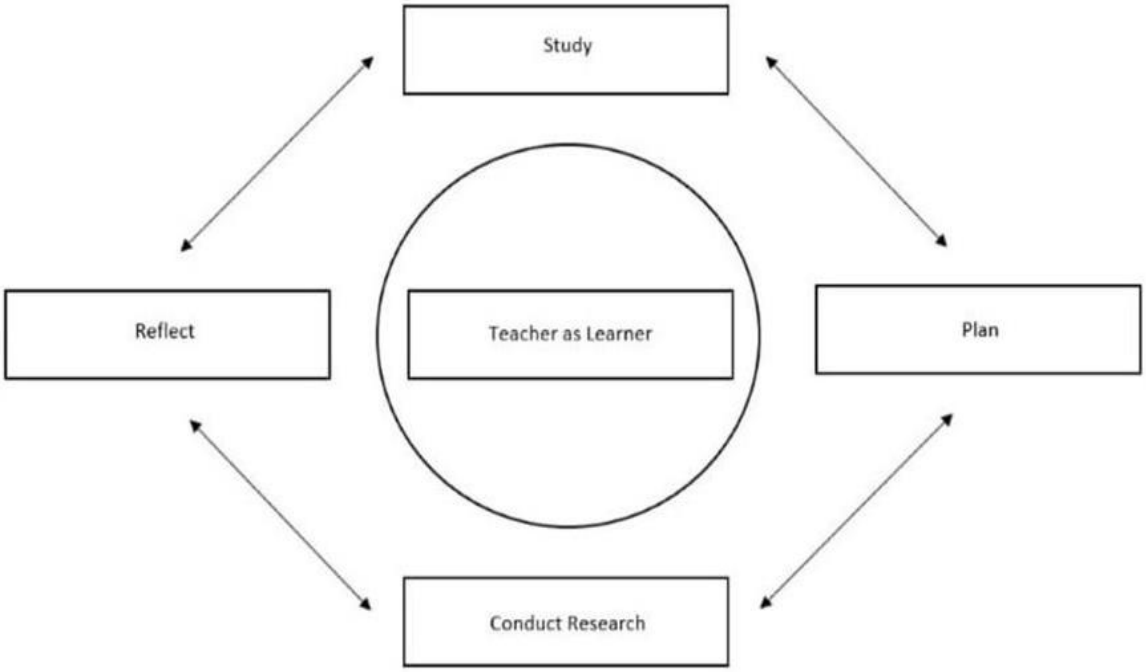

Figure 9. Lesson studies cycle. This figure illustrates the cyclical nature of lesson studies (Zepeda, 2015, p. 83).

Four basic steps outline the activities that occur during lesson studies (Lewis, Perry, & Murata, 2006): teachers study curriculum and create goals, plan, conduct research, and reflect. When teachers study curriculum and formulate goals, they study

the curriculum in order to identify a topic that encompasses a learning problem within the school. During the planning step, teachers note a specific learning problem and consider how this problem affects the learning goals of students. Conducting the research involves the actual teaching of planned lessons. During these lessons, a team of teachers observe and collect data as one teacher teaches the lesson. This lesson may be repeated to allow the teacher to make revisions. The team collectively reflects on the process. The team reconvenes, the lesson is discussed, and data are shared. During this reflection time, data should be used to explore and uncover concerns, new information, or celebrations.

The processes of lesson studies align with multiple adult learning principles. Setting goals establishes purpose and teachers' need to know. Teachers engage in self-directed learning when they consider their prior experiences and reflect on the lesson's components and learning outcomes. Additionally, the cyclical steps involved with lesson studies provide a specific process for teachers to follow. This task-centered approach correlates to orientation to learning (Knowles et al., 2015).

Mentoring. Mentoring is a job-embedded professional learning format that involves a relationship in which one educator advises or trains another educator. "Mentoring creates an opportunity for adults to broaden perspectives, examine assumptions and beliefs, and share expertise toward supporting growth" (Drago-Severson, 2009, p. 26). Mentoring relationships can include the pairing of experienced teachers with new teachers, knowledgeable teachers with less knowledgeable teachers (regarding a certain content or skill), or supervisors with teachers (Drago-Severson, 2009). During the process of mentoring, the mentors and mentees must first establish their focus and purpose for learning before creating a plan for teaching and learning.

Mentors may also engage in other forms of job-embedded professional learning formats including peer coaching and peer observations (Knowles et al., 2015; Zepeda, 2015).

PLCs. DuFour et al. (2016) defined a PLC as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (p. 4). In order for students to demonstrate improved learning, teachers need to be continuously engaged in the job-embedded professional learning format of PLCs (Drago-Severson, 2009). DuFour (2004) described three big ideas related to PLCs, including a focus on student learning, a collaborative culture among teachers, and effectively utilizing data to make instructional decisions. PLCs support adult learning principles by establishing purpose, encouraging collaboration, and motivating teachers to promote improved student learning (Knowles et al., 2015).

Summary of Chapter

This chapter reviewed literature about supporting adult learners and effective professional learning practices. Drago-Severson (2009) described four pillar practices that support the various ways in which adults learn and perceive experiences. These pillar practices include teaming, providing leadership roles, collegial inquiry, and mentoring. In addition to the pillar practices, it is also important to consider the various ways of knowing—instrumental, socializing, self-authoring, and self-transforming—present among adult learners. The different ways of knowing affect how adults make meaning of experiences and make sense of reality.

Teacher professional growth has a direct impact on student learning; therefore, effective professional learning is a priority for school districts. Effective professional

learning should follow DuFour's (2004) three big ideas that focus on student learning, collaboration, and results. The Standards for Professional Learning (Learning Forward, 2011) are an important reference when considering which strategies to use to support effective professional learning.

Job-embedded learning plays a critical role in helping teachers improve their day-to-day work. This form of learning occurs within the context of the job setting (Zepeda, 2015). Croft et al. (2010) described several formats of job-embedded professional learning including (a) action research, (b) peer coaching, (c) peer observations, (d) data teams, (e) student work examinations, (f) professional growth plans, (g) lesson studies, (h) mentoring, and (i) PLCs. Each of these job-embedded professional learning formats encompasses adult learning principles described by Knowles et al. (2015). The adult learning principles are self-direction, relevancy, prior experiences, readiness to learn, and motivation to learn. Job-embedded professional learning requires collaboration among teachers as they engage in the learning process relative to their work (Zepeda, 2015).

The following chapter focuses on the methodology used in this study about how teachers understand themselves as adult learners and perceive their professional learning experiences. The methodology will include descriptions of the research design and participants as well as data collection and analysis methods. Furthermore, the delimitations and limitations will be reviewed.

Chapter 3: Methodology

This chapter provides an overview of the methodology used in this study that examined how teachers understand themselves as adult learners and perceive their job-embedded professional learning experiences within a rural school district in North Carolina. This study was a replication by extension of Fitzgerald's (2014) dissertation. This research followed an explanatory sequential mixed methods design to study teacher understandings of themselves as adult learners and their perceptions of job-embedded professional learning experiences. Explanatory sequential mixed methods is a design "in which the researcher first conducts quantitative research, analyzes the results and then builds on the results to explain them in more detail with qualitative research" (Creswell, 2014, p. 15). The quantitative data results are explained in further detail with the qualitative data (Creswell, 2014).

Overview

When attempting to examine how teachers understand themselves as adult learners and perceive their professional learning experiences, there are many variables to consider, including the core principles of adult learning and different job-embedded formats. In order to examine adult learning and professional learning within a single school district in rural North Carolina, a mixed-methods study was conducted.

Quantitative data were collected using a modified version (Appendix A) of Fitzgerald's (2014) survey (Appendix B). The researcher met with district leaders in which the study took place to review Fitzgerald's original survey. The district leaders made requests for the survey to be reduced in length due to other surveys that classroom teachers were asked to complete within a similar time frame of this study. The district's

goal for this modification was to reduce the amount of time necessary to complete the survey and, therefore, increase the response rate. To accomplish this task, the researcher focused on the most relevant job-embedded professional learning formats used in the district (action research, peer coaching, peer observations, data teams, student work examinations, professional growth plans, lesson studies, mentoring, and PLCs) and removed questions associated with other learning formats. Additionally, the researcher consolidated certain questions that were closely related to one another. For example, the original survey included two statements that read, "I learn best when I know why something is important for me to know or be able to do" and "I learn best when I am aware of the purpose of learning (goals and objectives)" (Fitzgerald, 2014, p. 226). To consolidate, these two statements were modified into one statement that read, "I learn best when I know the purpose of learning."

The researcher also removed the professional learning strategies section from Fitzgerald's (2014) original survey. This section was deemed less relevant to the current needs of the district. Relevance was determined based on the current formatting and structure of professional learning within the district as well as the consideration of terminology familiar to the teachers within the district. Furthermore, the researcher anticipated that the virtual interview phase of data collection would shed light on teacher perceptions of effective and ineffective professional learning strategies. Finally, the researcher modified the formatting of the survey items to further reduce the amount of time necessary for respondents to complete the survey. For example, the original survey was organized with a Likert scale underneath each statement. The modified survey presented just one Likert scale at the top of each section, above all the statements. The

remaining survey items were left intact. The modified survey was divided into four sections: Section I – Adult Learner, Section II – Professional Development Experiences, Section III – Professional Development Formats, and Section IV – Demographics. The researcher was granted permission from Fitzgerald to use and modify the survey (Appendix C).

Qualitative data were collected through virtual interviews (Appendix D) using Fitzgerald's (2014) interview protocol (Appendix E). While Fitzgerald conducted the interviews in person, the researcher conducted the interviews via Zoom, an online tool for video conferencing. The researcher made this adjustment to best accommodate the work schedule of the respondents as well as the time frame for this study. Many of the schools within the district are far apart in distance, so virtual interviews allowed the researcher to meet with more respondents at their preferred times. Zoom allowed the researcher and interviewer to see each other while also recording the video and audio from the interview. The interviewees were selected based on the survey respondents who expressed interest in participating in the interview. The survey provided quantitative data, followed by the interview's qualitative data. The qualitative data from the interview were used to further explain the gathered information related to teachers as adult learners and their perceptions of professional learning experiences. Consistent with Fitzgerald's methods, the data collected from the surveys and interviews, in conjunction with the related literature, were triangulated to form an analysis of multiple sources.

Research Questions

Survey items pertaining to professional learning strategies were removed due to a lack of relevance and incongruent terminology and to accommodate the district's request

to reduce the overall length of the survey. Due to the reduction of survey items, one of Fitzgerald's (2014) four research questions was modified to accommodate the needs of this study. Fitzgerald's research question corresponding with professional learning strategies was removed, and a new question was written to assess teacher perceptions of the effectiveness of job-embedded professional learning formats. As a result, the following research questions guided this replication by extension study:

1. How do teachers understand themselves as adult learners?
2. What are teacher perceptions of having experienced professional learning in a school district that embeds the core adult learning principles?
3. What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district?
4. What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district?

The retained research questions were formatted closely to match Fitzgerald's original questions. Modifications included changing the focus from secondary teachers to all teachers to accommodate the population extension. Additionally, the term professional learning was used rather than professional development in order to match the terminology presented in the Standards for Professional Learning (Learning Forward, 2011).

Research Design

Following an explanatory sequential mixed methods design, the study was conducted in two phases. The first phase, quantitative in nature, included the collection of an Internet-based survey. After quantitative data analysis, the second phase followed with virtual interviews to provide qualitative data that further explained the quantitative

data. Finally, the results from this study were compared to Fitzgerald's (2014) research conclusions.

The sample for the study was drawn from all teachers in a single rural school district in North Carolina. To recruit survey respondents, a series of emails (Appendix F) with a link to the survey was sent to approximately 850 teachers across the district within a 3-week time frame. First-year teachers of the district were exited by a logic question at the beginning of the survey since they had not yet participated in professional learning experiences within the district. A final question at the end of the survey directed respondents to an external link if they were interested in participating in the follow-up interview process. The separate link asked respondents to provide an email address for further correspondence related to scheduling and conducting virtual interviews if interested in participating. After the 3-week recruitment phase for survey respondents was complete, the researcher conducted seven virtual interviews with a random sample of the teachers who expressed interest. The researcher ensured the random sample included teachers from a variety of grade levels so that it was representative of the district's teachers.

Collecting the Data

Phase I: Survey. The Internet-based survey was administered via Survey Monkey using an external link to protect the anonymity of survey respondents. The survey had 28 items divided into four sections (Adult Learner, Professional Learning Experiences, Job-Embedded Professional Learning Formats, and Demographics). The first three sections contained a Likert scale related to the research. The three scales included the Adult Learning Scale, the Professional Learning Experiences Scale, and the

Job-Embedded Professional Learning Formats Scale.

Section I: Adult Learner included two questions and six Likert items within the Adult Learner Scale. The first question asked respondents if they were a teacher. If the respondent answered that they were not a teacher, they were exited out of the survey since this research focused only on teachers. The second question asked teachers to share how many years of teaching experience they had within the district. If teachers were beginning their first year within the district, they were exited out of the survey since they had not yet participated in professional learning experiences within the district. The six Likert items focused on how the respondents viewed themselves as adult learners. Each of the Likert items corresponded with one of the core adult learning principles described by Knowles et al. (2015). For each item, respondents were asked to select the response that best described their level of agreement with the statement based on a 6-point weighted scale.

Section II: Professional Learning Experiences was composed of six Likert items within the Professional Learning Experiences Scale. These Likert items inquired about respondent perceptions of their professional development experiences within the district that embedded the core adult learning principles (Knowles et al., 2014). Each of the Likert items corresponded with one of the core adult learning principles described by Knowles et al. (2015). For each Likert item, respondents were asked to select the response that best described the frequency with which their experiences aligned with the statements based on a 6-point weighted scale.

Section III: Job-Embedded Professional Learning Formats had nine Likert items within the Job-Embedded Professional Learning Formats Scale and four open-ended

response questions. The Likert items asked respondents to best describe the frequency with which they had experienced job-embedded professional learning formats within the district using a 6-point weighted scale. The four open-ended questions asked respondents to write about which job-embedded learning formats they found to be most and least effective, and why.

Section IV: Demographics had three multiple-choice questions designed to collect demographic information about the survey respondents. At the end of the survey, respondents had the choice to opt in for a virtual, follow-up interview, if interested, by providing their contact information.

Reliability of survey. Reliability, "the consistency of scores across instances of the testing procedure" (Standards for Educational and Psychological Testing, 2014, p. 2), is particularly important in the collection and analysis of quantitative data (Creswell & Plano Clark, 2011). Fitzgerald (2014) piloted the survey prior to use within her study and tested for internal consistency. Internal consistency is measured based on the consistency between survey items. Fitzgerald conducted an internal consistency reliability analysis on the survey, and all three scales (Adult Learner Scale, Professional Learning Experiences Scale, and Job-Embedded Professional Learning Formats Scale) measured very good reliability with Cronbach's alphas equaling .91, .96, and .92 (Field, 2005). Since the original survey was modified for this study, the researcher also piloted the survey with a small group of professional colleagues from her doctoral program to ensure functionality of the format and clarity within the statements and to determine approximately how long the survey would take to complete (Creswell & Plano Clark, 2011). The researcher made minor modifications according to their feedback. Examples

of the modifications included an update of contact information and providing choices among the open-response questions to avoid the need for respondents to scroll up and down to find an answer and respond.

Phase II: Interviews. At the end of the survey, respondents had the option of expressing interest in participating in a follow-up interview. By clicking a link that took the respondents to a separate page from the survey, the participants were able to share their contact information with the researcher. The external link ensured the confidentiality of their survey responses. A random sample of 12 respondents received an initial email from the researcher to confirm their desire to participate in the virtual interview. The researcher ensured the random sample included a variety of grade levels. This contact inquired about their available dates and times for the interview to occur. Finally, an interview informed consent form was shared with the invited participants.

Within a week of the initial contact, the researcher contacted each of the interview participants by email to schedule the interviews. Most participants responded within 48 hours of contact; however, some participants never responded or opted out due to an incoming hurricane. While the researcher had hoped to conduct at least 10 interviews, the circumstances allowed for only seven. Once a schedule was established for the seven interviews, the researcher sent a confirmation email to each participant to confirm the determined date and time of the virtual interview. All scheduled participants appeared for the scheduled interview.

The virtual interview took the form of a guided conversation facilitated by the researcher (Rubin & Rubin, 2012). The researcher used Fitzgerald's (2014) interview guide for each interview. Each interview lasted approximately 30 minutes, and all

sessions were digitally recorded for transcription. The researcher conducted the interviews using Zoom, an online video conferencing tool that can record the video and audio. The researcher also kept field notes during each of the interviews to increase the credibility of the data collection. Upon completion of the virtual interviews, the researcher used the audio recording from each interview to create a written transcription of the dialogue.

Analyzing the Data

Survey data analysis. Utilizing a modified form of the *Teachers as Learners: Professional Development Experiences* survey (Fitzgerald, 2014), the survey was administered using Survey Monkey. The raw survey data were documented in a spreadsheet and reviewed by the researcher for analysis. Descriptive statistics were used to summarize, organize, and characterize the data. "Descriptive statistics transform a set of numbers or observations into indices that describe or characterize the data; descriptive statistics are thus used to summarize, organize, and reduce large numbers of observations" (McMillan & Shumacher, 2010, p. 149).

The survey began with a demographic question about years of teaching experience in the district. If teachers were in their first year within the district, they were exited from the survey since they did not have any professional learning experience within the district. Teachers who had at least 1 year of prior experience within the district continued the survey. This question also provided demographic information that could assist the district in categorizing and organizing the results from the study. The researcher used a numeric code for each respondent (1-112) and organized the information provided about teacher years of experience next to each respondent code as

one source of demographic data for analysis.

The survey utilized a 6-point Likert scale for Sections I, II, and III. The Likert scale in Section I (Adult Learning Scale) had the following numerical values for measurement: 6=*agree very strongly*, 5=*agree strongly*, 4=*agree*, 3=*disagree*, 2=*disagree strongly*, and 1=*disagree very strongly*. The Likert scales in Sections II and III (Professional Learning Experiences Scale and Job-Embedded Professional Learning Formats Scale) had the following numerical values for measurement: 6=*very frequently*, 5=*frequently*, 4=*occasionally*, 3=*rarely*, 2=*very rarely*, and 1=*never*. Each Likert item required a response from participants to avoid missing data. These responses were used as ordinal data. All Likert items within Sections I, II, and III were analyzed separately. The reported frequencies and percentages are outlined in a tabular format in Chapter 4 to display the findings, and a descriptive narrative accompanies each table (Allen & Seaman, 2007). Each Likert item was then compared to the others within the same scale to determine the central tendency through mode.

The open-ended questions were optional for completion. Fifty-four of the 112 respondents completed these questions. The researcher reviewed the responses to determine the frequency and percentage of each job-embedded professional learning format as it was reported to be most effective or least effective. Central tendency was also determined using mode to rank the formats from most effective to least effective. Upon organizing the data in a tabular format, the researcher also coded the explanations for themes. A descriptive narrative accompanies this table in Chapter 4.

Section IV included multiple-choice questions intended to collect demographic information about the respondents. This section yielded nominal data that allowed the

researcher to further organize information within the data analysis (Allen & Seaman, 2007). These data were aligned with each respondent's numerical code and organized within the researcher-created spreadsheet. The final question served only as an option for respondents to express interest in participating in the follow-up interview through an external link. These responses were collected in a separate survey that prompted for the respondent's email address and type of school in which they work (elementary/primary, middle, or high). Using the range of responses from the type of school question, the researcher was able to select a representative sample of teachers within the district based on the type of schools in which they worked. Three interviews were conducted with elementary/primary teachers, two interviews were conducted with middle school teachers, and two interviews were conducted with high school teachers.

Interview data analysis. The purpose of analyzing the qualitative data results from the interview was to "provide more depth, more insight into the quantitative results" (Creswell, 2014, p. 225) from the survey. Following Creswell's (2014) recommendations for interview data analysis procedures, the researcher organized and prepared the data, generated themes, coded the data, offered interpretations, and presented the results.

Each of the seven interviews was digitally recorded to capture the audio. The recordings were used to create written transcriptions for each interview. To protect the anonymity of the interview participants, the researcher used coded identifiers (T1, T2, T3, etc.) and stored all digital transcriptions on a password-protected computer and hard-copy transcriptions in a locked filing cabinet within a locked office. Interview participants had the opportunity to review their written transcription for accuracy. The written transcription of each interview was sent via email to the corresponding

participants. The email asked the participants to review their transcription and ensure that it accurately depicted the dialogue from the interview. To analyze the results, the researcher utilized large marginal space within the written transcriptions in order to write comments, code, and generate themes (Creswell, 2014). The results are presented in the form of a narrative in Chapter 4 of this dissertation. Table 1 displays a summary of the instruments and methods for data collection and analysis as they relate to the research questions guiding this study.

Table 1

Data Collection and Analysis: Tools and Methods

Research Question	Tools/ Instruments	Data Collected	Methods of Analysis
1. How do teachers understand themselves as adult learners?	Online Survey (Section I)	Selected Response Likert Items within Adult Learning Scale	Quantitative (Laerd, 2012): Items analyzed separately - reported frequencies, percentages, and average scores (Allen & Seaman, 2007) Mode used to measure central tendency (Sauro, 2016) Ranking of items based on mode and average scores
	Zoom Interview (Question 5)		Qualitative: Generating Themes/ Coding Integration of Survey and Interview Data (Survey was primary-data source, interview data accompanied survey data for further analysis) Patterns and/or Contradictions identified
2. What are teacher perceptions of having experienced professional learning in a school district that embeds the core adult learning principles?	Online Survey (Section II)	Likert Items within Professional Learning Experiences Scale	Quantitative (Laerd, 2012): Items analyzed separately - reported frequencies, percentages, and average scores (Allen & Seaman, 2007) Mode used to measure central tendency (Sauro, 2016) Ranking of items based on mode and average scores
	Zoom Interview (Questions 1-6)	Transcriptions from Interview	Qualitative: Generating Themes/ Coding Integration of Survey and Interview Data (Survey was primary-data source, interview data accompanied survey data for further analysis) Patterns and/or Contradictions identified
3. What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district?	Online Survey (Section III)	Likert Items within Job-Embedded Professional Learning Formats Scale	Quantitative (Laerd, 2012): Items analyzed separately - reported frequencies, percentages, and average scores (Allen & Seaman, 2007) Mode used to measure central tendency (Sauro, 2016) Ranking of items based on mode and average scores

(continued)

Research Question	Tools/ Instruments	Data Collected	Methods of Analysis
4. What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district?	Online Survey – (Section III)	Open-Ended Items	Quantitative (Laerd, 2012): Frequency of similar responses Ranking of items using a dual bar chart based on frequency Qualitative: Generating Themes/ Coding
Other – Demographics and Interest in Follow-up Interview	Online Survey – (Section IV)	Selected Response Items External link	Demographic information attained to further categorize and organize the data. Final item served only as an option for respondents to express interest in participating in the follow-up interview by providing contact information

Limitations of the Study

Limitations are forces or constraints that could affect a study outside the control of the researcher (Simon & Goes, 2013). Due to the nature of this replication study and the constraints placed on the study from the district, several limitations were present. The district in which the study took place strived to remain sensitive to the protection of teacher time. In response, the district asked the researcher to reduce the overall length of the survey by reducing items deemed irrelevant or unnecessary. The reduction in survey items limited the information that was gathered and reduced the generalizability of the results in relation to the replicated study.

In response to the district's request to decrease the length of the survey, the researcher reduced the number of survey items within each section to accommodate the presented needs and interests of the district and reformatted the layout of the survey items. The researcher reduced items based on relevancy and reformatted the layout to reduce the time necessary to complete the survey. The researcher piloted the modified survey to ensure clarity and calculate the approximate time it would take to complete the

survey; however, since this was the first time the survey was utilized in this manner, it presented a limitation to the reliability and validity of the results. The remaining survey items were left intact. The reduction in survey items also required the removal of a corresponding research question from the original study. This change reduced the generalizability of the results as related to the replicated study. Furthermore, the district showed preference for the survey to be administered during the first few weeks of the upcoming school year. The beginning of the school year can be busy for teachers; therefore, the time frame of the study affected the results by limiting the number of responses received. More so, during the last week of this data collection window, a predicted category four hurricane approached the state. North Carolina was under a state of emergency, schools were closed, and people spent days preparing for the upcoming storm. As the storm moved through North Carolina, heavy winds and flooding caused severe damage and power outages. This event affected the results of this study by limiting the number of survey responses received as well as the number of volunteers available to participate in the virtual interview. Since only a small sample of teachers participated in the study, the results may not be representative of the full population of teachers across the district.

Delimitations of the Study

Delimitations are the "conscious exclusionary and inclusionary decisions" (Simon & Goes, 2013, p. 4) made by the researcher that may affect a research study. This study had three delimitations. The first delimitation of this research related to the setting chosen for this study. The researcher chose to conduct research in her own district due to convenience and access. This limited the generalizability of the results since other

districts and states are not represented.

A second delimitation related to the population chosen for this study. The researcher chose to gather data from a sample of teachers. Roles not classified as teacher positions within the district were excluded from the population of this study. These population exclusions narrowed the scope of information that could have been gathered relating to other employee perspectives of professional learning experiences within a district.

A third delimitation included the researcher's decision to conduct virtual interviews instead of in-person interviews as done by Fitzgerald (2014). Virtual interviews presented a challenge in building rapport with participants which, in turn, may have affected participant openness in sharing personal experiences related to professional learning in the district.

Summary of Chapter

In summary, the researcher replicated the original work of Fitzgerald (2014) while using population and context-driven extensions as well as method and measurement-driven extensions (Laerd, 2012). The population extension included a sample of all teachers within a district instead of Fitzgerald's sixth- through 12th-grade classroom teachers. The context extension included a rural North Carolina school district instead of Fitzgerald's urban Connecticut school district. The method and measurement extensions included modifications to the survey instrument to accommodate the particular needs and interests of the North Carolina school district. The survey items were reduced and reformatted to only include items considered most pertinent to the district. Pertinence was determined based on the current formatting and structure of professional learning

within the district as well as the consideration of terminology familiar to the teachers within the district. The remaining survey items were left intact as originated by Fitzgerald. As an additional modification, the interviews were conducted via Zoom instead of Fitzgerald's in-person interviews to best accommodate the scheduling needs of respondents located across distances. The data collected from the surveys and interviews, in conjunction with the related literature, were triangulated to form a comprehensive analysis.

Chapter 4: Results

This chapter reports the results of this research study that investigated how the rural North Carolina teachers in this study understand themselves as adult learners and perceive their professional learning experiences. The conceptual framework for this study was based on the andragogy in practice model (Knowles et al., 2015). This model is comprised of three main components: goals and purposes for learning, individual and situational differences, and andragogy. With a focus on andragogy, six core adult learning principles are addressed. These core adult learning principles are (a) the learner's need to know, (b) self-concept of the learner, (c) prior experience of the learner, (d) readiness to learn, (e) orientation to learning, and (f) motivation to learn. A modified version of Fitzgerald's (2014) survey was used in this study. The survey included sections specifically aligned to these core adult learning principles.

Additionally, this study gathered information about teacher perceptions of their job-embedded professional learning experiences within their district. Job-embedded professional learning occurs when learning is presented to educators during regular working hours and focused on the differentiated needs of teachers to support the improvement of specific instructional practices (Zepeda, 2015). Croft et al. (2010) described several formats of job-embedded professional learning including (a) action research, (b) peer coaching, (c) peer observations, (d) data teams, (e) student work examinations, (f) professional growth plans, (g) lesson studies, (h) mentoring, and (i) PLCs. Each of these job-embedded professional learning formats encompasses adult learning principles described by Knowles et al. (2015). The modified survey, *Teachers as Learners: Professional Development Experienced*, included a section specifically

aligned to these job-embedded professional learning formats.

This chapter begins with a brief overview of the research methodology used within this study and a description of the population sample. The chapter continues with a report of the quantitative results of the survey phase of the study, followed by the qualitative results of the online interviews.

Overview of Methodology

This mixed-methods research study investigated how teachers understand themselves as adult learners and perceive their professional learning experiences within a rural school district in North Carolina. Based on Fitzgerald's (2014) mixed-methods research, the following research questions guided this replication study:

1. How do teachers understand themselves as adult learners?
2. What are teacher perceptions of having experienced professional learning in a school district that embeds the core adult learning principles?
3. What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district?
4. What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district?

An explanatory sequential mixed methods approach was used for data collection. The two sources of data collected included an online survey and virtual interviews. Survey respondents were given the option to participate in a follow-up interview. For those who expressed interest, email correspondence was used to schedule the virtual interview. A total of 112 teachers completed the online survey and seven participated in the virtual interview.

Phase I: Survey

Reliability. Fitzgerald (2014) piloted the original survey prior to use within her study and tested for internal consistency. The survey contained three subscales (Adult Learner Scale, Professional Learning Experiences Scale, and Job-Embedded Professional Learning Formats Scale). All subscales measured very good reliability with Cronbach's alphas equaling .91, .96, and .92 (Field, 2005). Since the original survey was modified for this study, the researcher also piloted the survey with a small group of educators to ensure functionality of the format and clarity within the statements and to determine approximately how long the survey would take to complete (Creswell & Plano Clark, 2011). Based on their feedback, the researcher made minor modifications to improve the reliability of the survey. Examples of the modifications included an update of contact information and providing choices among the open-response questions to avoid the need for respondents to scroll up and down to find an answer and respond.

Population sample. The sample for this study consisted of 112 teachers within a rural school district in North Carolina. Table 2 displays the demographic characteristics of the survey sample.

Table 2

Demographic Characteristics of Survey Sample (N=112)

Characteristic	N	%
Highest Degree Earned		
Bachelor's Degree	50	44.6%
Master's Degree	37	33.0%
Master's Plus	22	19.6%
Doctoral Degree	3	2.6%
Years of Teaching Experience		
1 to 5 years	36	32.1%
6 to 11 years	32	28.5%
12 to 17 years	22	19.6%
18-23 years	15	13.3%
24-29 years	4	3.5%
30 years or more	3	2.6%
Gender		
Male	11	9.8%
Female	101	90.1%

Survey respondents were predominantly female (N=101, 90.1%). A majority of respondents had earned a bachelor's degree (N=50, 44.6%) or a master's degree (N=37, 33.0%) and ranged from 1-11 years of teaching experience.

Data collection and analysis. The online survey was administered via Survey Monkey. The survey had 28 items divided into four sections. The survey utilized a 6-point Likert scale for Sections I, II, and III. The Likert scale items in Section I had the following numerical values for measurement: 6=*agree very strongly*, 5=*agree strongly*, 4=*agree*, 3=*disagree*, 2=*disagree strongly*, and 1=*disagree very strongly*. The Likert scale items in Sections II and III of the survey had the following numerical values for measurement: 6=*very frequently*, 5=*frequently*, 4=*occasionally*, 3=*rarely*, 2=*very rarely*, and 1=*never*. The Likert scale item responses were used as ordinal data. The Likert scale items within Sections I, II, and III were analyzed separately. The reported frequencies,

percentages, and modes are outlined in a table to display the information, and a descriptive narrative accompanies the table (Allen & Seaman, 2007).

The open-ended items were optional for completion. These items asked respondents to identify the most and least effective job-embedded professional learning format and explain their opinion. Fifty-four of the 112 survey respondents completed the open-ended items. Within these open-ended items, the respondents could respond with as much detail as they desired. Responses to the open-ended items were analyzed by the researcher using a 3-step process. First, the researcher counted congruent responses to rank the formats from most effective to least effective. These data were displayed in a tabular format. Next, the researcher read individual responses regarding respondent rationale for their choices. Finally, the researcher pulled direct quotations from the responses to help explain why respondents listed the learning formats as most or least effective.

Section IV included items intended to collect demographic information about the respondents. This section yielded nominal data that allowed the researcher to organize information within the data analysis (Allen & Seaman, 2007). The researcher organized the demographic information in a table as an overview of the studied population. The final item in this section of the survey served only as an option for respondents to express interest in participating in the follow-up interview.

The researcher followed the methodology for analyzing the quantitative and qualitative survey responses, as outlined in Chapter 3. The raw survey data were downloaded into a Portable Document Format (PDF) file and then organized in a spreadsheet to be reviewed by the researcher for analysis. Descriptive statistics were

used to summarize, organize, and characterize the data.

Results. The survey was organized into four sections that aligned to the four research questions (Adult Learner, Professional Learning Experiences, Job-Embedded Professional Learning Formats, and Demographics). The survey utilized a 6-point Likert scale for Sections I, II, and III. Each of these sections focused on a specific subscale of the overall research study. The three subscales included the Adult Learner Scale, Professional Learning Experiences Scale, and Job-Embedded Professional Learning Formats Scale. Section I of the survey addressed the adult learner and aligned to Research Question 1. Section II gathered information about professional learning experiences in the district and aligned to Research Question 2. Section III focused on job-embedded professional learning formats and aligned to Research Question 3 examining frequency of this format. Section III of the survey also provided two open-ended questions regarding respondent opinions of the most and least effective job-embedded professional learning formats and aligned to Research Question 4.

Research Question 1: How do teachers understand themselves as adult learners? For the purposes of this research study, adult learners are defined as people over the age of 18 participating in a learning experience, formally or informally (Drago-Severson, 2009). Knowles et al.'s (2015) andragogy in practice model consists of six core adult learning principles for professional learning among adults. These principles are the (a) learner's need to know, (b) learner's self-concept, (c) learner's prior experience, (d) learner's readiness to learn, (e) learner's orientation to learning, and (f) learner's motivation to learn.

The Likert items within Section I: Adult Learner aligned with the core adult

learning principles described by Knowles et al. (2015). Each item within this section was analyzed separately (Allen & Seaman, 2007) and then compared using the average scale score. Table 3 reports the frequencies, percentages, and average scores of the Likert item responses for the Adult Learner Scale.

Table 3

Results from Adult Learner Scale

Score (N=112) Likert Items	6 Agree Very Strongly	5 Agree Strongly	4 Agree	3 Disagree	2 Disagree Strongly	1 Disagree Very Strongly	Average Score (1-6)	Mode
I learn best when I know the purpose of learning. (a)	46.4% (52)	32.1% (36)	19.6% (22)	0.9% (1)	0.9% (1)	0.0% (0)	5.22	Agree Very Strongly
I learn best when I have some control (choice) over the way I experience learning. (b)	35.7% (40)	32.1% (36)	23.2% (26)	5.4% (6)	2.7% (3)	0.9% (1)	4.90	Agree Very Strongly
I learn best when I can connect the learning topic to my prior knowledge. (c)	43.8% (49)	31.3% (35)	21.4% (24)	1.8% (2)	1.8% (2)	0.0% (0)	5.13	Agree Very Strongly
I learn best when the learning is connected to my current work. (d)	54.5% (61)	26.8% (30)	18.8% (21)	0.0% (0)	0.0% (0)	0.0% (0)	5.36	Agree Very Strongly
I learn best when I am able to question, inquire, or problem solve during a learning experience. (e)	36.6% (41)	27.7% (31)	30.4% (34)	2.7% (3)	1.8% (2)	0.9% (1)	4.92	Agree Very Strongly

(cont.)

Score (N=112) Likert Items	6 Agree Very Strongly	5 Agree Strongly	4 Agree	3 Disagree	2 Disagree Strongly	1 Disagree Very Strongly	Average Score (1-6)	Mode
I learn best when I can select the learning experience that meets my needs. (f)	51.8% (58)	25.9% (29)	20.5% (23)	0.9% (1)	0.9% (1)	0.0% (0)	5.27	Agree Very Strongly

Note: Letters in parentheses correspond with Knowles et al.'s (2015) core adult learning principles (a-f).

Stacked bar charts are often used to show the frequency of responses in surveys. In these charts, each stack represents the frequencies of responses to a given survey item. A diverging stacked bar chart offers a variation for Likert items by horizontally positioning the responses to display the positive responses to the right of the vertical baseline and negative responses to the left of the baseline (Heiberger & Robbins, 2014). In effect, the chart clearly demonstrates the spread of negative and positive values, such as very strongly disagree to very strongly agree. Figure 10 presents a diverging stacked bar graph that visualizes the data from Table 3 and organizes the Likert items in rank order from highest to lowest according to the average score.

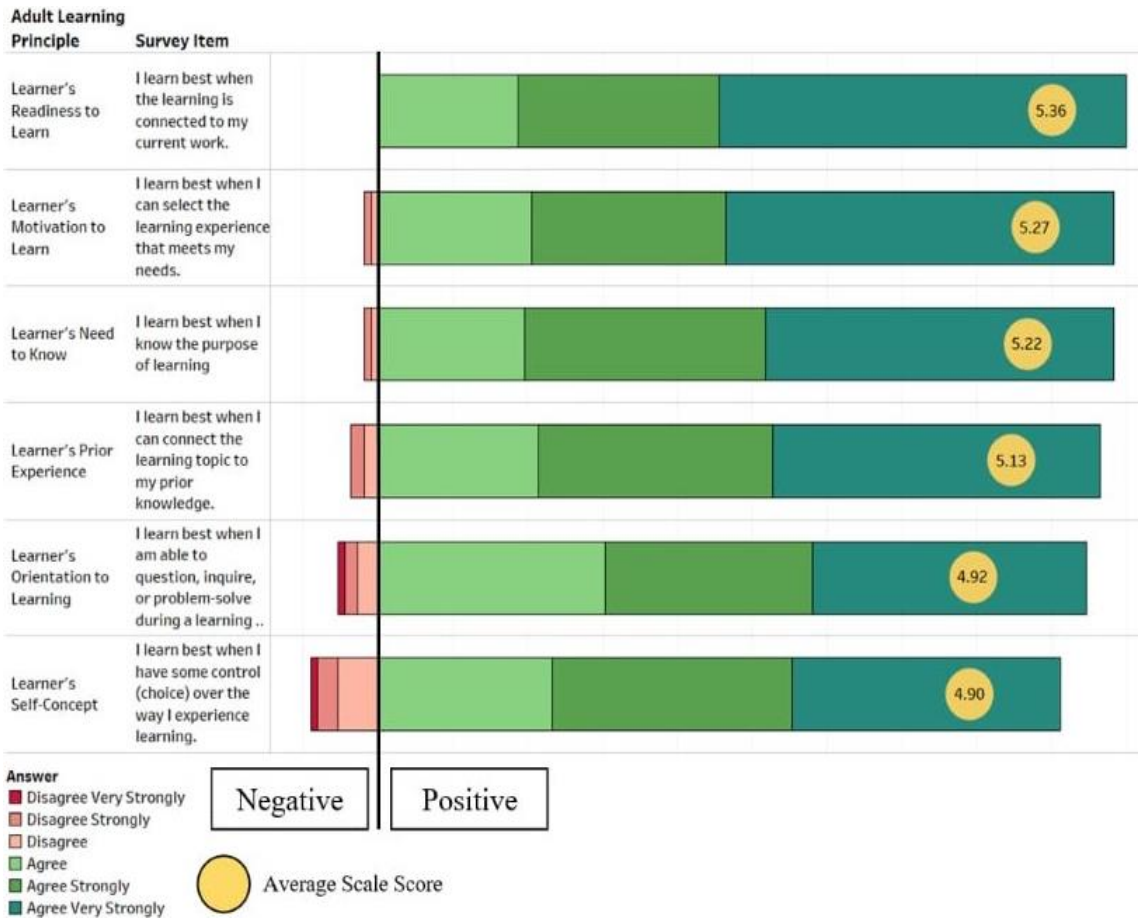

Figure 10. Diverging stacked bar chart: Adult Learning Scale. This figure visualizes the frequencies, percentages, and average scores from the Likert items in the Adult Learning Scale as displayed in Table 3.

Using mode as the measure of central tendency, the survey item at the very top of this chart received the most positive responses, while the survey item at the very bottom of this chart received the most negative responses.

The analysis of participant (N=112) responses to each item within the Adult Learning Scale, which measured how teachers learned best, led to seven findings. Findings related to this section of the survey are listed as S1 to S7.

Finding S1. Across all six items within the Adult Learning Scale, 96.6% of the

672 total responses indicated that the survey respondents either *agreed very strongly* (44.8%), *agreed strongly* (29.3%), or *agreed* (22.3%) that they learn best when the core adult learning principles are applied in their professional learning experiences.

Finding S2. The statement "I learn best when the learning is connected to my current work" ranked first with 100% (n=112) of survey respondents indicating that they *agreed very strongly* (n=61, 54.5%), *agreed strongly* (n=30, 26.8%), or *agreed* (n=21, 18.8%) with the item. The average scale score for this item was 5.36. This statement aligned with the core adult learning principle Learner's Readiness to Learn (Knowles et al., 2015).

Finding S3. The statement "I learn best when I can select the learning experience that meets my needs" ranked second with 98.2% (N=110) of survey respondents indicating that they *agreed very strongly* (n=58, 51.8%), *agreed strongly* (n=29, 25.9%), or *agreed* (n=23, 20.5%) with the item. The average scale score for this item was 5.27. This statement aligned with the core adult learning principle Learner's Motivation to Learn (Knowles et al., 2015).

Finding S4. The statement "I learn best when I know the purpose of learning" ranked third with 98.2% (n=109) of survey respondents indicating that they *agreed very strongly* (n=52, 46.4%), *agreed strongly* (n=36, 32.1%), or *agreed* (n=22, 19.6%) with the item. While the number of positive responses was consistent with the statement ranked second, the average scale score for this item was lower at 5.22. This statement aligned with the core adult learning principle Learner's Need to Know (Knowles et al., 2015).

Finding S5. The statement "I learn best when I can connect the learning topic to

my prior knowledge" ranked fourth with 96.5% (N=108) of survey respondents indicating that they *agreed very strongly* (n=49, 43.8%), *agreed strongly* (n=35, 31.3%), or *agreed* (n=24, 21.4%) with the item. The average scale score for this item was 5.13. This statement aligned with the core adult learning principle Learner's Prior Experience (Knowles et al., 2015).

Finding S6. The statement "I learn best when I am able to question, inquire, or problem solve during a learning experience" ranked fifth with 94.7% (N=106) of survey respondents indicating that they *agreed very strongly* (n=41, 36.6%), *agreed strongly* (n=31, 27.7%), or *agreed* (N=34, 30.4%) with the item. The average scale score for this item was 4.92. This statement aligned with the core adult learning principle Learner's Orientation to Learning (Knowles et al., 2015).

Finding S7. The statement "I learn best when I have some control (choice) over the way I experience learning" ranked last with 91% (N=102) of survey respondents indicating that they *agreed very strongly* (n=40, 35.7%), *agreed strongly* (n=36, 32.1%), or *agreed* (n=26, 23.2%) with the item. The average scale score for this item was 4.90. This statement aligned with the core adult learning principle Learner's Self-Concept (Knowles et al., 2015).

Research Question 2: What are teacher perceptions of having experienced professional learning in a school district that embeds the core adult learning principles? For the purposes of this study, professional learning experiences are defined as learning opportunities for teachers designed to advance knowledge, skills, and dispositions to increase their effectiveness. Effective strategies for implementation include collaboration, relevancy, application, self-assessment, problem-solving tasks, and

reflection (DuFour, 2004).

The Likert items within Section II: Professional Learning Experiences aligned with the core adult learning principles described by Knowles et al. (2015). These principles are the (a) learner's need to know, (b) learner's self-concept, (c) learner's prior experience, (d) learner's readiness to learn, (e) learner's orientation to learning, and (f) learner's motivation to learn. Each item within this section was analyzed separately (Allen & Seaman, 2007) and then compared using the average scale score. Table 4 reports the frequencies, percentages, and average scores of the Likert item responses for the Professional Learning Experiences Scale.

Table 4

Results from Professional Learning Experiences Scale

Score (N=112) Likert Items	6 Very Frequently	5 Frequently	4 Occasionally	3 Rarely	2 Very Rarely	1 Never	Avg. Score (1-6)	Mode
My PD experiences have had clear goals for learning. (a)	22.3% (25)	46.4% (52)	25.8% (29)	2.6% (3)	2.6% (3)	0% (0)	4.83	Frequently
My PD experiences have provided me with opportunities to choose the way (how) I learn. (b)	10.7% (12)	18.7% (21)	43.7% (49)	14.7% (18)	10.7% (12)	0% (0)	4.03	Occasionally
My PD experiences have helped me make connections to previous learning. (c)	11.6% (13)	41.9% (47)	40.1% (45)	4.4% (5)	1.7% (2)	0% (0)	4.57	Frequently
My PD experiences have helped me connect the new learning to my work. (d)	8.0% (9)	10.7% (12)	35.7% (40)	23.2% (26)	15.1% (17)	7.1% (8)	3.52	Occasionally
My PD experiences have provided me with opportunities for peer collaboration (e)	14.2% (16)	35.7% (40)	33.9% (38)	12.5% (14)	1.7% (2)	1.7% (2)	4.43	Frequently

(continued)

Score (N=112) Likert Items	6 Very Frequently	5 Frequently	4 Occasionally	3 Rarely	2 Very Rarely	1 Never	Avg. Score (1-6)	Mode
My PD experiences have provided me with opportunities to choose what (content) I learn based on my needs. (f)	9.8% (11)	12.5% (14)	36.6% (41)	25.0% (28)	11.6% (13)	4.4% (5)	3.71	Occasionally

Note: Letters in parentheses correspond with Knowles et al.'s (2015) core adult learning principles (a-f).

Figure 11 presents a diverging stacked bar graph that visualizes the data from Table 4 and organizes the Likert items in rank order from highest to lowest according to the average scale score.

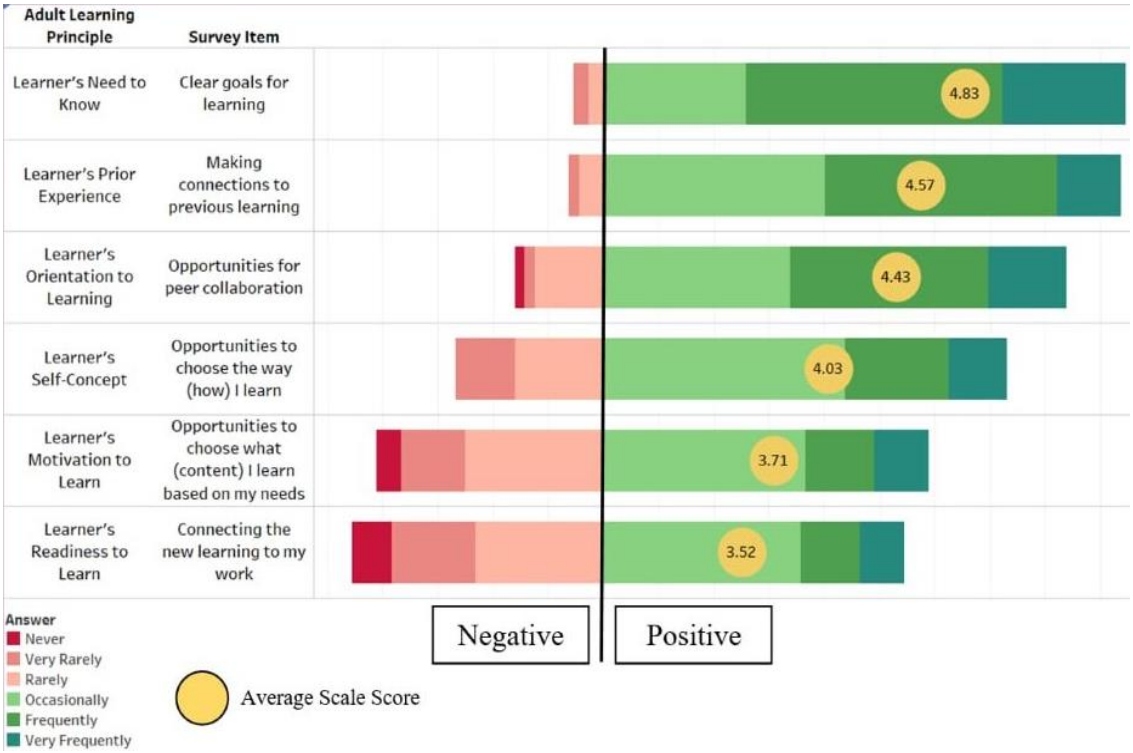

Figure 11. Diverging stacked bar chart: Professional Learning Experiences Scale. This figure visualizes the frequencies, percentages, and average scores from the Likert items in the Professional Learning Experiences Scale as displayed in Table 4.

Using mode as the measure of central tendency, the survey item at the very top of this chart received the most positive responses, while the survey item at the very bottom of the chart received the most negative responses.

The analysis of participant (N=112) responses to each item within the Professional Learning Experiences Scale, which measured teacher perceptions of the frequency in which their professional learning experiences embedded the core adult learning principles, led to seven findings. Findings related to this section of the survey are listed as S8 to S14.

Finding S8. Across all six items within the Professional Learning Experiences Scale, 76.4% of the 672 total responses indicated that the survey respondents perceived

the frequency of their professional learning experiences embedding the adult learning principles to be *very frequently* (12.8%), *frequently* (27.6%), or *occasionally* (36.0%).

Finding S9. The statement "My professional development experiences within this district have had clear goals for learning" ranked first with 94.6% (N=106) of survey respondents indicating the frequency to be *very frequently* (n=25, 22.3%), *frequently* (n=52, 46.4%), or *occasionally* (n=29, 25.8%). The average scale score for this item was 4.83. This statement aligned with the core adult learning principle Learner's Need to Know (Knowles et al., 2015).

Finding S10. The statement "My professional development experiences in this district have helped me make connections to previous learning" ranked second with 93.7% (N=105) of survey respondents indicating the frequency to be *very frequently* (n=13, 11.6%), *frequently* (n=47, 41.9%), or *occasionally* (N=45, 40.1%). The average scale score for this item was 4.57. This statement aligned with the core adult learning principle Learner's Prior Experience (Knowles et al., 2015).

Finding S11. The statement "My professional development experiences in this school district have provided me with opportunities for peer collaboration" ranked third with 83.9% (N=94) of survey respondents indicating the frequency to be *very frequently* (n=16, 14.2%), *frequently* (n=40, 35.7%), or *occasionally* (N=38, 33.9%). The average scale score for this item was lower at 4.43. This statement aligned with the core adult learning principle Learner's Orientation to Learning (Knowles et al., 2015).

Finding S12. The statement "My professional development experiences in this school district have provided me with opportunities to choose the way (how) I learn" ranked fourth with 73.2% (N=82) of survey respondents indicating the frequency to be

very frequently (n=12, 10.7%), *frequently* (n=21, 18.7%), or *occasionally* (n=49, 43.7%). The average scale score for this item was 4.03. This statement aligned with the core adult learning principle Learner's Self-Concept (Knowles et al., 2015).

Finding S13. The statement "My professional development experiences in this school district have provided me with opportunities to choose what (content) I learn based on my needs" ranked fifth with 58.9% (N=66) of survey respondents indicating the frequency to be *very frequently* (n=11, 9.8%), *frequently* (n=14, 12.5%), or *occasionally* (N=41, 36.6%). The average scale score for this item was 3.71. This statement aligned with the core adult learning principle Learner's Motivation to Learn (Knowles et al., 2015).

Finding S14. The statement "My professional development experiences in this school district have helped me connect the new learning to my work" ranked last with 54.4% (n=61) of survey respondents indicating the frequency to be *very frequently* (n=9, 8.0%), *frequently* (n=12, 10.7%), or *occasionally* (n=40, 35.7%). The average scale score for this item was 3.52. This statement aligned with the core adult learning principle Learner's Readiness to Learn (Knowles et al., 2015). While this response ranked last on the Professional Learning Experiences Scale, it ranked first on the Adult Learning Scale.

Research Question 3: What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district? For the purposes of this study, job-embedded professional learning formats are defined as learning presented to educators within a school or classroom during regular working hours. These formats focus on the differentiated needs of teachers and support the improvement of specific instructional practices (Zepeda, 2015).

The Likert items within Section III: Job-Embedded Professional Learning Formats included nine job-embedded professional learning formats as outlined by Croft et al. (2010). The formats used in this survey included (a) action research, (b) peer coaching, (c) peer observations, (d) data teams, (e) student work examinations, (f) professional growth plans, (g) lesson studies, (h) mentoring, and (i) PLCs. Each of these job-embedded professional learning formats encompasses adult learning principles described by Knowles et al. (2015). Each item within this section was analyzed separately (Allen & Seaman, 2007) and then compared using the average scale score. Table 5 reports the frequencies, percentages, and average scores of the Likert item responses for the Job-Embedded Professional Learning Formats Scale.

Table 5

Results from Job-Embedded Professional Learning Formats Scale

Score (N=112)	6 Very Frequently	5 Frequently	4 Occasionally	3 Rarely	2 Very Rarely	1 Never	Avg Score (1-6)	Mode
Action Research	2.6% (3)	8.9% (10)	23.2% (26)	20.5% (23)	24.1% (27)	20.5% (23)	2.84	Occasionally
Peer Coaching	8.9% (10)	21.4% (24)	33.0% (37)	27.6% (31)	8.9% (10)	0.0% (0)	3.94	Occasionally
Peer Observations	8.0% (9)	20.5% (23)	30.3% (34)	24.1% (27)	11.6% (13)	5.3% (6)	3.73	Occasionally
Data Teams	32.1% (36)	26.7% (30)	26.7% (30)	8.9% (10)	5.3% (6)	0.0% (0)	4.71	Very Frequently
Student Work Examinations	8.9% (10)	47.3% (53)	21.4% (24)	11.6% (13)	10.7% (12)	0.0% (0)	4.32	Frequently
Professional Growth Plans	14.2% (16)	41.0% (46)	26.7% (30)	11.6% (13)	2.6% (3)	3.5% (4)	4.42	Frequently
Lesson Studies	2.6% (3)	32.1% (36)	32.1% (36)	14.2% (16)	14.2% (16)	4.4% (5)	3.81	Frequently/ Occasionally

(continued)

Score (N=112)	6 Very Frequently	5 Frequently	4 Occasionally	3 Rarely	2 Very Rarely	1 Never	Avg Score (1-6)	Mode
Mentoring	16.0% (18)	26.7% (30)	29.4% (33)	14.2% (16)	8.0% (9)	5.3% (6)	4.13	Frequently
PLCs	41.0% (46)	41.0% (46)	15.1% (17)	0.0% (0)	0.0% (0)	2.6% (3)	5.15	Very Frequently/ Frequently

Figure 12 presents a diverging stacked bar graph that visualizes the data from Table 5 and organizes the Likert items in rank order from highest to lowest according to the average score.

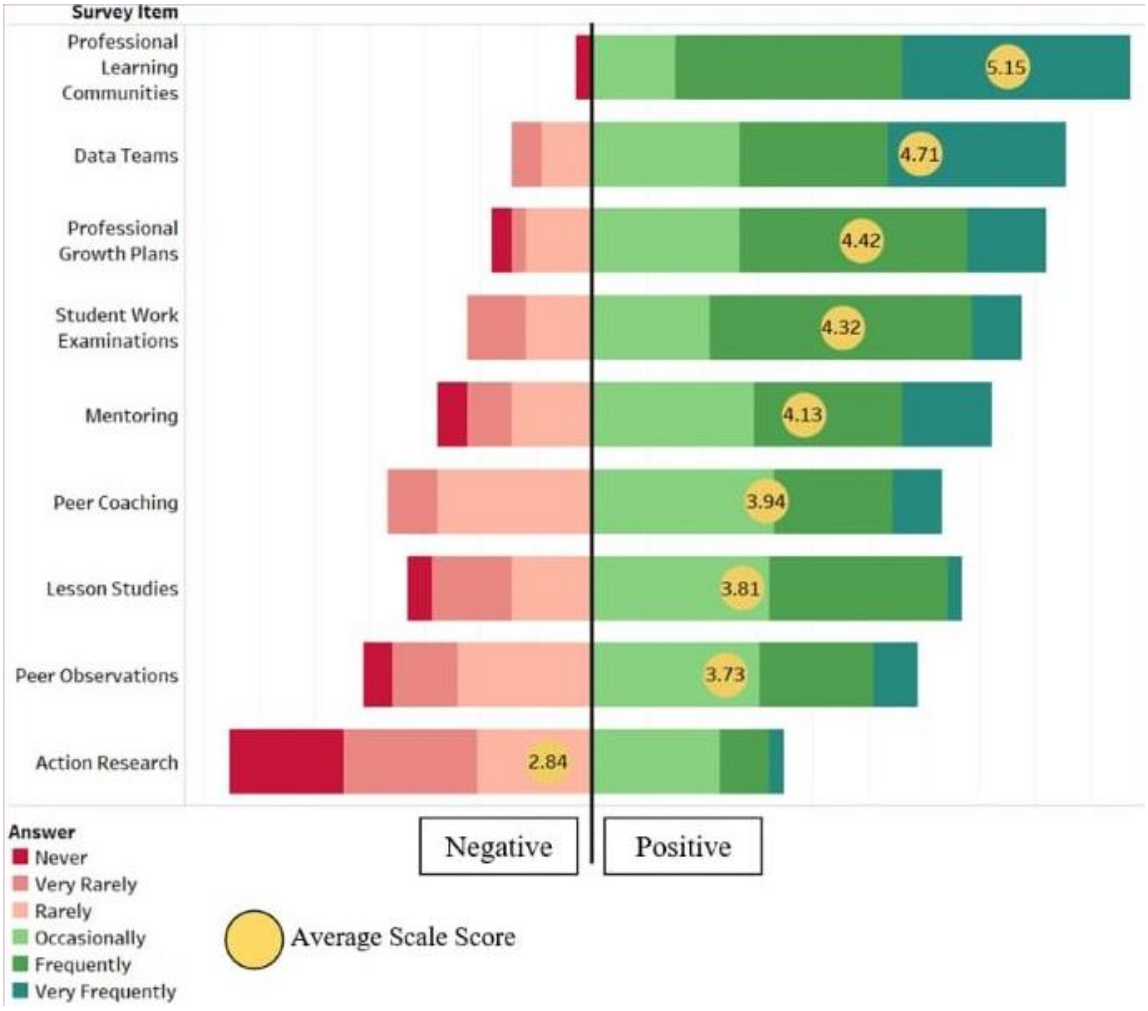

Figure 12. Diverging stacked bar chart: Job-Embedded Professional Learning Formats Scale. This figure visualizes the frequencies, percentages, and average scores from the Likert items in the Job-Embedded Professional Learning Formats Scale as displayed in Table 5.

Using mode as the measure of central tendency, the survey item at the very top of this chart received the most positive responses, while the survey item at the very bottom of the chart received the most negative responses.

The analysis of participant (N=112) responses to each item within the Job-Embedded Professional Learning Formats Scale, which measured teacher perceptions of the frequency in which they experienced job-embedded professional learning formats, led

to 10 findings. Findings related to this section of the survey are listed as S15 to S24.

Finding S15. Across all nine items within the Job-Embedded Professional Learning Formats Scale, 71.0% of the 1,008 total responses indicated that the survey respondents described the frequency of having experienced job-embedded professional learning formats to be *very frequently* (14.9%), *frequently* (29.5%), or *occasionally* (26.4%).

Finding S16. The item labeled "Professional Learning Communities" ranked first with 97.3% (N=109) of survey respondents indicating the frequency to be *very frequently* (n=46, 41.0%), *frequently* (n=46, 41.0%), or *occasionally* (n=17, 15.1%). The average scale score for this item was 5.15.

Finding S17. The item labeled "Data Teams" ranked second with 85.7% (N=96) of survey respondents indicating the frequency to be *very frequently* (n=36, 32.1%), *frequently* (n=30, 26.7%), or *occasionally* (N=30, 26.7%). The average scale score for this item was 4.71.

Finding S18. The item labeled "Professional Growth Plans" ranked third with 82.1% (N=92) of survey respondents indicating the frequency to be *very frequently* (n=16, 14.2%), *frequently* (n=46, 41.0%), or *occasionally* (n=30, 26.7%). The average scale score for this item was 4.42.

Finding S19. The item labeled "Student Work Examinations" ranked fourth with 77.6% (n=87) of survey respondents indicating the frequency to be *very frequently* (n=10, 8.9%), *frequently* (n=53, 47.3%), or *occasionally* (N=24, 21.4%). The average scale score for this item was 4.32.

Finding S20. The item labeled "Mentoring" ranked fifth with 72.3% (N=81) of

survey respondents indicating the frequency to be *very frequently* (n=18, 16.0%), *frequently* (n=30, 26.7%), or *occasionally* (N=33, 29.4%). The average scale score for this item was 4.13.

Finding S21. The item labeled "Peer Coaching" ranked sixth with 65.1% (N=73) of survey respondents indicating the frequency to be *very frequently* (n=10, 8.9%), *frequently* (n=24, 21.4%), or *occasionally* (N=37, 33.0%). The average scale score for this item was 3.94.

Finding S22. The item labeled "Lesson Studies" ranked seventh with 66.9% (N=75) of survey respondents indicating the frequency to be *very frequently* (n=3, 2.6%), *frequently* (n=36, 32.1%), or *occasionally* (N=36, 32.1%). The average scale score for this item was 3.81.

Finding S23. The item labeled "Peer Observations" ranked eighth with 58.9% (N=66) of survey respondents indicating the frequency to be *very frequently* (n=9, 8.0%), *frequently* (n=23, 20.5%), or *occasionally* (N=34, 30.3%). The average scale score for this item was 3.73.

Finding S24. The item labeled "Action Research" ranked last with 34.8% (N=39) of survey respondents indicating the frequency to be *very frequently* (n=3, 2.6%), *frequently* (n=10, 8.9%), or *occasionally* (N=26, 23.2%). The average scale score for this item was 2.84.

Research Question 4: What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district? The open-ended items within Section III: Job-Embedded Professional Learning Formats asked respondents to identify the format they perceived was most effective and least effective and explain why.

The list of job-embedded professional learning formats used for this study was provided to the respondents within the question for easy selection. The survey items prompted the respondents to explain why they selected the particular format as either most or least effective. Respondents had the option of skipping the open-ended questions on the survey. Of the 112 total survey respondents, 54 completed the open-ended items. Table 6 reports the frequencies of the responses for each format identified as either the most effective or least effective job-embedded professional learning format according to the respondents.

Table 6

Job-Embedded Professional Learning Formats: Most and Least Effective

	Most Effective	Least Effective
Action Research	7	4
Peer Coaching	14	3
Peer Observations	12	2
Data Teams	4	3
Student Work Examinations	2	9
Professional Growth Plans	1	15
Lesson Studies	3	11
Mentoring	6	2
PLCs	9	1

Figure 13 and Figure 14 present a dual bar graph that visualizes the data from Table 6. Figure 13 organizes the frequency reports of the most effective job-embedded professional learning formats in rank order from the highest frequency to the lowest frequency. Figure 14 organizes the frequency reports of the least effective job-embedded professional learning formats in rank order from the highest frequency to the lowest frequency.

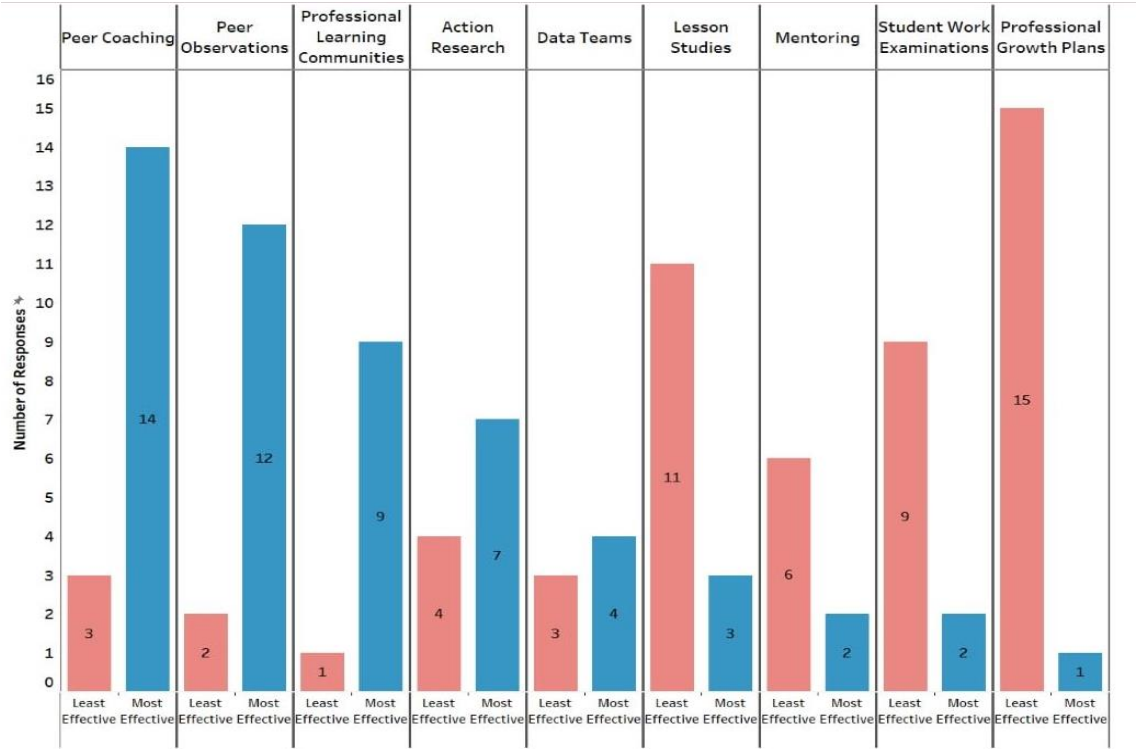

Figure 13. Dual bar chart: Most effective formats ranked. This figure visualizes the information in Table 6 about each the effectiveness of each learning format and organizes the reported frequencies of the most effective formats in rank order from highest frequency to lowest frequency of responses.

According to the data presented in Figure 13, the respondents considered peer coaching, peer observations, and PLCs to be the most effective job-embedded professional learning formats. The job-embedded professional learning format peer coaching (N=14) ranked first as most effective. Respondents described this format as "a wonderful," (T16) "hands-on approach to learning" (T6). One respondent described how peer coaching allowed teachers to "work with other teachers to share effective strategies and learn from other's experiences" (T23). Another stated that peer coaching provided "feedback that is less intimidating than feedback from an administrator" (T11).

The job-embedded professional learning format peer observation (N=12) ranked second as most effective. Respondents described this format as a way for "all teachers,

beginning or experienced, to continue to learn from other teachers" (T49) and "be connected with other teachers and classrooms" (T27). One respondent said, "peer observations are so powerful because they help the observer just as much as the teacher being observed" (T17). Another respondent claimed, "I know all of my best tricks from observing other teachers" (T2).

The job-embedded professional learning format PLCs (N=9) was ranked third as most effective. According to a respondent, "professional learning communities are most effective because teachers are able to focus on specific content and strategies to improve learning for their students" (T32). Other respondents described this format as a "community" (T4) where "all educators work together" (T36) to "meet the needs of each student" (T50). One respondent explained how PLCs allowed her to "work with other teachers and exchange ideas" (T13).

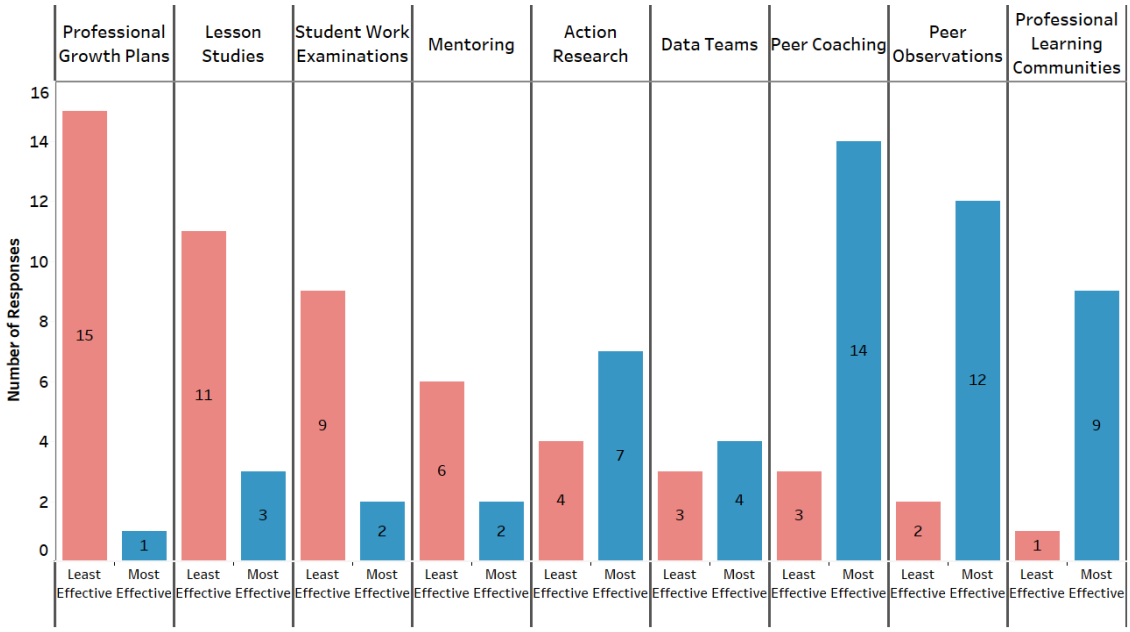

Figure 14. Dual bar chart: Least effective formats ranked. This figure visualizes the information in Table 6 about each the effectiveness of each learning format and organizes the reported frequencies of the least effective formats in rank order from highest frequency to lowest frequency of responses.

According to the data presented in Figure 14, the respondents considered professional growth plans, lesson studies, and student work examinations to be the least effective job-embedded professional learning formats. The job-embedded professional learning format professional growth plans (N=15) ranked first as least effective. Respondents described this format as a "check-the-box activity" (T29) where "the goals are often dictated" (T44) and "little follow-through" (T5) occurs. Other respondents stated that professional growth plans are "waste of time" (T11) and they are "not aligned to everyone's teaching style or personal goals" (T16).

The job-embedded professional learning format lesson studies (N=11) ranked second as least effective. Respondents stated that lesson studies are "unrealistic to a teacher's planning time" (T51) and that during this format "too much time is spent on one lesson" (T33). Another respondent described lesson studies as "something you do when you're in college, but not something you have time for on a regular basis as a teacher" (T17). One respondent wrote, "Lesson studies are not necessarily appropriate for all teachers, depending on what they teach" (T25). Another wrote, "Lesson studies are just not the top priority for how we spend our time. There are so many more pressing matters" (T18).

The job-embedded professional learning format student work examinations (N=9) ranked third as least effective. Respondents described this format as a "built-in" (T6) task for teachers as they "grade papers and review the students' thinking processes" (T1). Others stated that "there is not time in the day for things like formal student work examinations" (T50) and that teachers "realistically don't want to help grade more papers for another teacher when they already have so many of their own to grade" (T14).

Another respondent stated, “There are so many other things that have to get done. You have to prioritize, because you can’t fit everything into the day” (T31).

The analysis of respondent (N=54) responses to the open-ended question regarding the most effective job-embedded professional learning format presented six findings. Findings related to the open-ended response items from the survey are listed as O1 to O6.

Finding O1. The job-embedded professional learning format peer coaching (N=14) ranked first as the most effective.

Finding O2. The job-embedded professional learning format peer observation (N=12) ranked second as most effective.

Finding O3. The job-embedded professional learning format PLCs (N=9) was ranked third as most effective.

The analysis of respondent (N=54) responses to the open-ended question regarding the least effective job-embedded professional learning format presented the following findings:

Finding O4. The job-embedded professional learning format professional growth plans (N=15) ranked first as least effective.

Finding O5. The job-embedded professional learning format lesson studies (N=11) ranked second as least effective.

Finding O6. The job-embedded professional learning format student work examinations (N=9) ranked third as least effective.

Phase II: Interviews

As a follow-up to the survey, seven online interviews were conducted using the

online platform Zoom. Interviewees are identified in this dissertation using the letter Z, for Zoom, and a number (Z1, Z2, Z3, etc.). The researcher used Fitzgerald's (2014) interview guide to conduct each interview. Interviewees were asked to reflect on a memorable professional learning experience within the district. The interview consisted of six questions to prompt the interviewees to reflect on their professional learning experiences. The researcher first prompted the interviewees to describe the sounds and sights of professional learning experience by explaining what the facilitator was doing, what the participants were doing, and what the conversations sounded like. Next, the interviewees were prompted to describe the circumstances leading up to the learning experience, such as the purpose of the learning experience and the reason for their attendance. From here, the interviewees were asked to reflect on the effective and/or ineffective actions of the facilitator and how they impacted their learning. Then, the researcher asked interviewees to expand on why they believed the facilitator's actions were effective or to share what more effective action they might have expected. Next, the researcher prompted the interviewees to describe the effects or results of the facilitator's actions as they related to their learning. This question in the interview aligned specifically with Research Question 1. Last, the interviewees had the opportunity to share any other information about their professional learning experiences within the district. All six questions in the interview were aligned with Research Question 2.

After completing the interviews, the researcher sent the audio recordings to an online transcription company to be transcribed. Reading through each of the transcriptions numerous times, the researcher took initial notes and made observations about the data. The researcher searched for repeated words and concepts related to the

professional learning experience. Table 7 displays the initial notes and observations made by the researcher.

Table 7

Interview Transcriptions: Researcher's Initial Notes and Observations

Interviewee	Attendance was Mandated/Choice	Positive Repeated Words/ Concepts	Negative Repeated Words/ Concepts	Learning Experience Described as Mostly Effective/Ineffective
Z1	Mandated	-team -positive reinforcement -engagement -hands-on -checking for understanding -resources -relationships -choice in content	-wasting time -too much time -unorganized -one-size fits all	Effective
Z2	Choice	-informative -knowledgeable facilitator -hands-on -excitement -fun -beneficial -modeling -working with others -resources	-poor timing	Effective
Z3	Mandated	-discussion -relevant -informative -resources	-too much time -boring -lack of choice -treated like a child -unfocused -off-topic -waste of time	Ineffective
Z4	Mandated	-knowledgeable facilitator -positive -on-topic -resources -hands-on	-lack of choice -poor timing -lack of differentiation -dispassionate facilitators -treated like a child -check-box	Ineffective
Z5	Mandated	-discussion -resources -informative -knowledgeable facilitator	-not memorable -lack of choice -boring -off-task -lack of differentiation	Ineffective

(continued)

Interviewee	Attendance was Mandated/Choice	Positive Repeated Words/ Concepts	Negative Repeated Words/ Concepts	Learning Experience Described as Mostly Effective/Ineffective
Z6	Mandated	-informative -collaboration -discussion -knowledgeable facilitator -asking questions -engaging -hands-on -relevance	-lack of differentiation -lack of choice -poor timing	Effective
Z7	Choice	-memorable -making connections -active learning -usable resources -hands-on -fun -relevant -engaging	-lack of differentiation -not based on needs	Effective

Five of the seven interviewees shared professional learning experiences that were mandated, while two interviewees reflected on a professional learning experience they chose to attend. Four interviewees used mostly positive words and described their learning experience as effective, while three shared mostly negative words to describe their ineffective professional learning experience.

Using the data from the interview transcriptions, the researcher coded for themes. Seven themes emerged – six related to Knowles et al.'s (2015) core adult learning principles and one related to strategies for effective facilitation. Among the adult learning principles (Knowles et al., 2015), examples were coded for each principle. Four interviewees described four instances that could be coded as learner's need to know. Six interviewees provided nine examples that were coded as learner's self-concept. Three interviewees described four instances that could be coded as learner's prior experience. Three interviewees provided four examples that were coded as learner's readiness to learn. Three interviewees described four instances that could be coded as orientation to

learning. Three interviewees provided three examples that were coded as motivation to learn.

All seven interviewees provided 15 instances that could be coded as effective facilitation strategies. Within the theme of effective facilitation strategies, five subthemes emerged. These subthemes include collaboration, modeling, active learning, resources and materials, and appropriate use of time. Three interviewees described three instances that could be coded as collaboration. Two interviewees provided two examples that were coded as modeling. Four interviewees described four instances that could be coded as active learning. Three interviewees provided three examples that were coded as resources and materials. Two interviewees described three instances that could be coded as appropriate use of time.

The results of the interviews as they relate to the survey data are discussed in connection with the seven themes. Direct quotations from the interview transcriptions are used to present the results. This section will conclude with a list of findings.

Learner's need to know. Most adults prefer to know why they need to know the information and develop the skills before engaging in a new learning experience (Knowles et al., 2015). Adults prefer to understand the why, what, and how of the learning process before any learning occurs. When adults understand the relevance and benefit of learning, they are more likely to invest the time and effort required to learn; therefore, learning facilitators need to make learners aware of the need to know.

In the descriptions of their memorable professional learning experiences, four interviewees described four instances that could be coded as learner's need to know. Two interviewees described experiences where the need to know was effectively

established, and two interviewees gave examples of when the need to know was not effectively established. One interviewee described her need to know by stating,

> The purpose was to train us how this program will work and how we can utilize it because we then had to go back into our school and share what we learned to our teachers. And then the teachers had to be able to implement the program. (Z5)

Another interviewee explained that her professional learning experience helped her develop a skill that she was struggling with.

> I attended because I felt like it was something I had never done before, and so, I felt like I was trying to figure it out throughout the school year, but it didn't make a lot of sense to me until I actually went to the training. And then it was like, "ah I get this now! I understand!" (Z1)

When asked about the purpose of a specific professional learning experience, one interviewee responded,

> I suppose its purpose is to keep schools better trained in recognizing mental health signs. I guess. I don't know this for a fact, but I'm assuming schools are trying to become more aware of different mental health issues going on in the school community. The reason I went is because I was asked to go. (Z3)

Another interviewee, concerned about the relevance and benefits of professional learning experiences, stated, "I do not care to go to a lot of different trainings for things that will not help further me in my classroom and would not even help fulfill my requirements in renewing my license" (Z3).

Learner's self-concept. Most adults display a self-concept of independence and strive to take responsibility for their own decisions (Knowles et al., 2015). Adults often

resent learning situations where they lack autonomy of what they will learn and how they will learn it. As learners, adults prefer to take ownership of their growth through a self-directed approach.

During the virtual interviews, six interviewees described nine district examples of their professional learning experiences that were coded as learner's self-concept. The theme of learner's self-concept appeared the most frequently out of the six themes related to the core adult learning principles (Knowles et al., 2015). Interviewees described six positive professional learning experiences related to self-concept and three negative experiences. Three interviewees highlighted how their learning styles contributed to their self-concept. One interviewee explained, "I am more of a kinesthetic, hands-on learner to where if I can watch it be done, and kind of put my hands on it at the same time, then I understand it a lot better" (Z1). Similarly, other interviewees commented on a facilitator's ability to account for the learners' self-concepts. "I feel like he actually really reached us all, our different learning styles, things like that. We were up and moving. We were talking. It wasn't just sitting there looking at a Power Point" (Z6). Another interviewee stated, "I liked that approach where the facilitator did more of monitoring the process of what was going on, but then allowing the participants to explore and kind of learn on their own" (Z1).

Three other interviewees expressed their feelings about being offered new information through collaborative facilitation in which learning takes a more self-directed approach. One stated,

> It just made it feel really personable that we weren't being lectured. Rather we were all engaged with her, and we were on the same level. She wasn't the

presenter teaching us. She was one of us, and we learned together. (Z2)

Similarly, another interviewee reflected on the benefit of self-directed, collaborative learning by stating, “I feel like if you get time to talk with your peers about how you're going to use it, you're going to be likely to more use it, to use it with success” (Z6). Another interviewee commented, “I like the idea of having more online learning where I could log in and do things more on my own time instead of a set schedule” (Z4).

Three interviewees discussed negative professional learning experiences related to self-concept. One interviewee shared her dislike for learning experiences that do not provide autonomy and self-direction.

> As a professional, I don't like doing things as children do. I don't like sharing out and adding to a chart poster like I might would in my classroom. I don't enjoy that, and I don’t want to be made to do it. (Z3)

Two interviewees discussed the lack of independence and self-direction when obligated to attend a professional learning experience. One stated, “I felt like I had to go, even though I didn’t want to” (Z3); and another shared that he felt that professional development “is very forced upon what we’re having to learn and understand, even if we don’t need it. We just go to check off a box” (Z7).

Learner’s prior experience. Adults approach new learning experiences with a range of prior knowledge and experiences. Prior experiences can either boost or obstruct new learning (Knowles et al., 2015). Three interviewees provided four examples their prior experiences that may have affected their approach to new learning experiences. In learning about a new concept, one interviewee shared,

> It's not something I've been trained in ever. I wouldn't even say in college I was

> even talked to about some of the topics she introduced, and it made me reflect, and think of how I could become more aware in my own classroom. (Z3)

Another interviewee explained that a lack of background knowledge affected her ability to learn. "We didn't have the background knowledge to be prepared for the session, and some of the things the presenter told us to do didn't seem applicable to our jobs in the classroom" (Z7). Two other interviewees reflected on past professional learning experiences that may affect their approach to new learning experiences. The first of these two interviewees reflected on the lack of relevancy in past professional learning experiences.

> In the past they have not been geared towards my specific area. A lot of the times the professional development is not something that is useful or beneficial to me. The presenters also don't seem as passionate about what they're presenting. It seems more of like a burden or I was made to do this kind of thing. (Z2)

Similarly, the second interviewee suggests a pattern in the lack of follow-through with new learning experiences.

> I find that every two or three years the school system jumps on a new program and ignores everything else for a while. But I would really prefer us not to just jump every two years into something new, and be trained in that, because it feels like it's not beneficial to me or my students. (Z3)

Learner's readiness to learn. Relevancy and necessity promote adult readiness to learn. Adults become ready to learn when they experience situational or performance needs or if they are exposed to increased performance expectations or the exemplary practices of others. Three interviewees shared four examples of their readiness to learn

within professional learning experiences.

Two interviewees expressed how their readiness to learn related to relevancy and the exemplary practices of others. One interviewee stated, “The best PDs I've been to are the ones where I’m seeing the amazing stuff people do in the classroom and I'm like, ‘oh my goodness! I could take this to my classroom tomorrow!’” (Z2). Another shared why she was ready to learn. “I was very willing because it was something I wanted to be better at actually incorporating that into my classroom” (Z1).

Two interviewees shared their preference for relevancy and necessity when experiencing professional learning. One stated, “That's what I like at my school, is having that ability to choose different PDs to attend that we see as useful and not having everybody just go to the same PD because someone required it” (Z6). Another said, “That's my biggest thing, is just making sure that PD can be differentiated for the teachers, just like we make sure to differentiate the learning for our students to best meet their needs” (Z1).

Learner’s orientation to learning. Adults approach learning from either a life-centered, problem-centered, or task-centered perspective. Adults become oriented to learn when they perceive that learning will help them complete tasks or deal with problems they are facing. Presenting information in real-life scenarios promotes their learning of new information, skills, values, and attitudes (Knowles et al., 2015). Three interviewees described four examples of how they were oriented to learn through real-life scenarios during professional learning experiences.

Two interviewees described the facilitator’s role in providing tasks to address actual problems teachers are facing.

> She gave us different scenarios, and we discussed the scenarios she gave us as a group and what we thought the correct outcome should be, or the correct way to handle different situations. It really made us think and listen to different perspectives. (Z3)

Another stated, "The facilitator was walking around and asking questions using examples that we would actually see in our classroom. Asking those questions got us to talk through it and explain our thinking" (Z1).

Two interviewees shared professional learning experiences that used real-life examples. One interviewee discussed her orientation to learn through experiences "where we have that time of exploration and a time of discussion where we're seeing how we could actually use this in the classroom to make improvements" (Z1). Referring to a specific learning experience, another stated, "It gave us a real-life example of what these kids are going through and what might be going through some of our students' heads" (Z7).

Learner's motivation to learn. Adult learners present higher levels of motivation by internal motivators such as job satisfaction, self-esteem, and quality of life. Adults present lower levels of motivation by external motivators such as higher salaries and job promotions. Three interviewees described three instances of how their facilitators motivated them to learn within the professional learning experience. One interviewee was motivated to learn because she gained a new awareness and was able to reflect on her teaching priorities. "The presenter just made me, I guess, more aware. And she made me reflect about my own priorities in teaching. And sometimes how we get so busy, we forget the main reason we're there" (Z3). Another expressed the feeling

of encouragement she felt from her facilitator as a motivator for learning. "She made us want to learn and was also being encouraging when we shared ideas or asked questions, like, 'Oh my gosh, I never thought of that before!'" (Z1). Another interviewee described her motivation through positive affirmations throughout the learning experience. "There was a lot of positive reinforcement and affirmations towards between the teachers and especially from the facilitator towards the group" (Z4).

Effective facilitation strategies. Professional learning can be facilitated using a variety of development models including training, observation and evaluation, involvement in an improvement process, action research, and mentoring (Drago-Severson, 2009). Regardless of the variations among the professional learning models, there are common features in each of the approaches that support effective professional learning. The models

> (1) work to link improved instructional practice and student learning, (2) address the needs of student and adult learners, (3) are collaborative and ongoing experiences, (4) create a culture of excellence, and (5) allocate time for reflective practice that nurtures learning and application. (Blankstein et al., 2007, p. 21)

Several of these facilitation approaches were mentioned within the interviews.

During the interviews, participants were asked to recall which actions of the facilitator of the professional learning experience were effective or ineffective. Then, they were asked to explain why these actions were either effective or ineffective. To follow up with these questions, interviewees were also asked to explain what more effective action could have been taken by the facilitator to support their learning. In response to this series of questions, interviewees described several facilitation strategies

that were effective in helping them learn. Interviewees provided 15 examples of effective facilitation strategies within their professional learning experiences. These examples were coded as effective facilitation strategies. There were five subthemes that emerged within the theme of effective facilitation strategies. These subthemes include collaboration, modeling, active learning, resources and material, and appropriate use of time.

Collaboration. Four interviewees described four instances of working with their colleagues during their professional learning experiences. These instances were coded as collaboration. The subtheme of collaboration appeared the most frequently out of the five subthemes of effective facilitation strategies. Four examples of collaboration were described by the interviewees. One explained, "The presenter really gave us time to branch out and talk with other schools, instead of him just standing in front and giving us all this information" (Z6). Similarly, another interviewee commented on the benefit of working in groups. "It was really beneficial how we were able to break in groups and plan for how we're going to implement and monitor and motivate our students to take that assessment" (Z7). Two interviewees explained how collaboration increased their level of understanding. One stated, "We worked together on learning the different pieces of the program, and this is what helped me understand it the most" (Z5). The other said, "We all met together in our different teams of teachers and had to start going through the same challenge ourselves, just like the students would. I learned a lot" (Z1).

Modeling. Two interviewees provided two examples of where the facilitator practiced modeling within the professional learning experiences. These examples were coded as modeling. One interviewee stated, "The presenters they did a great job of

showing the group of teachers what and how to use the materials in their classroom" (Z2). Another explained, "They actually took the time to take a kit apart and that whole day we went through the different pieces, and she showed us how to use it" (Z5).

Active learning. Three interviewees described three instances of their professional learning experiences being effective because of active learning and engagement. These instances were coded as active learning. Two interviewees described how the incorporation of physical movement and active formats promoted their learning. One interviewee described, "They had these cohorts set up to where you would rotate through different cohorts throughout the day. And in each cohort, you were learning something new in a different way" (Z1). Another stated, "I'm more of a hands-on learner. Like if you show me and set me down and show me how to do it, then I've got it" (Z6). Similarly, another interviewee shared an experience where hands-on learning was beneficial. "She got us out of our seats quite a bit. So, we were able to interact with people and do hands-on activities that we could take back to our classrooms" (Z5).

Resources and materials. Three interviewees provided three examples of being provided useful resources and materials at a professional learning experience. These examples were coded as resources and materials. When reflecting on receiving resources and materials at a professional learning experience, one interview shared, "That's one reason I wanted to sign up for it, so they gave us resource books that we would use with our students. They gave us lessons and materials" (Z5). Two interviewees noted the benefit of the facilitator sharing the resources and materials used within the professional learning experiences. One said, "She presented it in a way that seemed easy and something that could be done. And she gave us the tools and lesson plans so that we

could take it right back and start with our students" (Z2). Another recalled, "She sent the information with us so that we could look at it later. There was a PowerPoint and a book with everything in it" (Z3).

Appropriate use of time. Two interviewees described three examples of the importance of using time appropriately during professional learning experiences. These examples were coded as appropriate use of time. One interviewee discussed how having adequate time to explore and discuss the topic makes the learning experience beneficial. She stated,

> When we have enough time to explore and discuss what we are learning, then we're seeing how it can actually be use this in the classroom. So, instead of feeling like we just wasted our time, the PD becomes more of a resource that we can use. (Z1)

Two interviewees recalled experiences where they did not feel that their time was appropriately considered. One reflected, "It felt like time got wasted between moving on or changing topics or getting everyone back on track" (Z4). Another discussed,

> As far as the district wide PD, our most recent one was the week before school started, two working days before the first day of school. No time is going to be the perfect time for a teacher to stop and go to a professional development, but it would be nice if it more teacher friendly as far as thinking and planning about what else is going on within the teachers' schedule. (Z7)

Interview findings. The analysis of interviewee (N=7) responses to the virtual interview questions led to 11 findings. The findings from the interview are listed as I1 through I11.

Finding I1. In the virtual interviews, 57% (N=4) of the interviewees (N=7) described four instances where a professional learning experience was more effective when it engaged the learner's need to know.

Finding I2. In the virtual interviews, 85.7% (N=6) of the interviewees provided nine examples of where a professional learning experience was more effective when it engaged the learner's self-concept.

Finding I3. In the virtual interviews, 42.8% (N=3) of the interviewees described four instances where a professional learning experience was more effective when it engaged the learner's prior experience.

Finding I4. In the virtual interviews, 42.8% (N=3) of the interviewees described four examples of where a professional learning experience was more effective when it engaged the learner's readiness to learn.

Finding I5. In the virtual interviews, 42.8% (N=3) of the interviewees described four instances where a professional learning experience was more effective when it engaged the learner's orientation to learning.

Finding I6. In the virtual interviews, 42.8% (N=3) of the interviewees described three examples of where a professional learning experience was more effective when it engaged the learner's motivation to learn.

Finding I7. In the virtual interviews, 57.1% (N=4) of the interviewees described four instances where a facilitator was more effective in a professional learning experience that incorporated collaboration strategies.

Finding I8. In the virtual interviews, 28.5% (N=2) of the interviewees described two examples where a facilitator was more effective in a professional learning experience

that incorporated modeling strategies.

Finding I9. In the virtual interviews, 42.8% (N=3) of the interviewees described three instances where a facilitator was more effective in a professional learning experience that incorporated active learning strategies.

Finding I10. In the virtual interviews, 42.8% (N=3) of the interviewees described three examples where a facilitator was more effective in a professional learning experience that provided resources and materials.

Finding I11. In the virtual interviews, 25.8% (N=2) of the interviewees described three instances where a facilitator was more effective in a professional learning experience that considered appropriate use of time.

Summary of interview findings. The analysis of the interview data revealed that the interviewees in this study perceived that professional learning experiences are more effective when the core adult learning principles are incorporated. The six core learning principles are the learner's need to know, self-concept of the learner, prior experience of the learner, readiness to learn, orientation to learning, and motivation to learn. Additionally, effective facilitation strategies within a professional learning experience contribute to the level of engagement and meaningfulness of the learning. Effective facilitation strategies described by the interviewees included collaboration, modeling, active learning, resources and materials, and appropriate use of time.

Summary of Chapter

This mixed-methods research study investigated how teachers understand themselves as adult learners and perceive their professional learning experiences within a rural school district in North Carolina. An explanatory sequential mixed methods

approach was used for data collection and analysis. The findings in this chapter were developed through an analysis of the data collected in an online survey and virtual interviews. Data analysis procedures described in Chapter 3 were followed.

Findings for Research Question 1. Overall, the respondents reported that they learned best when the core adult learning principles were applied to their professional learning experiences. Approximately 97% of the total responses from the Adult Learning Scale indicated that respondents agreed with this idea.

Findings for Research Question 2. Most respondents reported that their professional learning experiences at least occasionally aligned with the core adult learning principles; however, only about 40% of the responses indicated that the core adult learning principles were frequently embedded into their professional learning experiences. Approximately 60% of the responses indicated that the core adult learning principles were infrequently embedded into their professional learning experiences. Specific examples of these perceptions were cited from the virtual interviews.

The six core adult learning principles (Knowles et al., 2015) were presented as common themes for effective professional learning within the virtual interviews. Additionally, interviewees indicated that effective facilitation strategies within a professional learning experience contribute to the level of engagement and meaningfulness of the learning. Effective facilitation strategies described by the interviewees included collaboration, modeling, active learning, resources and materials, and appropriate use of time.

Findings for Research Question 3. Most respondents reported that they at least occasionally experienced job-embedded professional learning formats; however, only

about 67% of responses indicated that they were frequently experiencing job-embedded professional learning formats. Approximately 33% of responses indicated that teachers reported that they infrequently experienced job-embedded professional learning formats.

Findings for Research Question 4. When involved in job-embedded professional learning, respondents indicated that peer coaching, peer observations, and PLCs were the most effective formats for learning. Professional growth plans, lesson studies, and student work examinations were perceived as the least effective formats for learning. Specific reasons why these formats were chosen as either most or least effective were cited from the open-ended response questions in the survey.

Chapter 5 provides the researcher's conclusions based on the results of this study followed by recommendations for practice and future research.

Chapter 5: Conclusions and Recommendations

This chapter presents the researcher's conclusions and recommendations based on the analysis of survey and interview data collected in this explanatory sequential mixed methods research study. This chapter begins with a summary of the study. Then, survey and interview findings are listed below each research question that guided this study. The researcher's final conclusions are presented and compared to Fitzgerald's (2014) conclusions from the replicated study. The chapter concludes with the researcher's recommendations for practice and future research.

Summary of the Study

This mixed-methods study investigated how teachers understand themselves as adult learners and perceive their professional learning experiences within a rural school district in North Carolina. Knowles et al.'s (2015) andragogy in practice model served as the conceptual framework for this study because it utilizes core adult learning principles, which can be applied to professional learning opportunities. The six core adult learning principles are the learner's (a) need to know, (b) self-concept, (c) prior experience, (d) readiness to learn, (e) orientation to learning, and (f) motivation to learn.

This study was a replication through the extension of Fitzgerald's (2014) dissertation. The purpose of this study was to extend the generalizations of the original study, build upon previous research, and add related knowledge to the original study. The researcher followed the methods used in the original study, with some extensions, to determine whether the same results could be found.

The first phase of the study included the survey. The researcher modified the original survey through reduction based on recommendations from the district in which

the study took place. The online survey, *Teachers as Learners: Professional Learning Experiences,* was administered via Survey Monkey. The survey had 28 items divided into four sections. The first two sections of the survey were aligned with the cored adult learning principles (Knowles et al., 2015). The first section investigated how teachers understood themselves as learner and aligned with Research Question 1. The second section investigated teacher perceptions of the frequency in which the core adult learning principles were embedded into their professional learning experiences. This section aligned with Research Question 2. The third section aligned with job-embedded professional learning formats (Croft et al., 2010). This section investigated teacher perceptions of the frequency in which they experienced job-embedded professional learning formats in the district and which formats they perceived to be most and least effective. This section aligned with Research Questions 3 and 4. The fourth section served only to collect demographic information about the population sample.

The survey utilized a 6-point Likert scale for Sections I, II, and III. In the first section of the survey, respondents were asked to select the response choice on a 6-point scale (6=*agree very strongly*, 5=*agree strongly*, 4=*agree*, 3=*disagree*, 2=*disagree strongly*, and 1=*disagree very strongly*) that best described their level of agreement with the six statements aligned to the core adult learning principles (Knowles et al., 2015). In the next two sections of the survey, respondents were asked to select the response choice on a 6-point scale (6=*very frequently*, 5=*frequently*, 4=*occasionally*, 3=*rarely*, 2=*very rarely*, 1=*never*) that best described the frequency with which they had experienced professional learning that embedded the core adult learning principles (Knowles et al., 2015) and job-embedded professional learning formats (Croft et al., 2010). The Likert

scale items within these sections were analyzed separately based on frequency and percentage and then compared using mode as a measure of central tendency and the average scale score. Section III of the survey also contained two open-ended response items that asked respondents to identify the job-embedded professional learning formats they found most effective and least effective. The researcher counted the frequency of responses to rank formats perceived most effective and least effective. Responses to the open-ended items of the survey were analyzed by the researcher. The researcher read individual responses to determine why respondents made their choices and used direct quotations from the responses to help explain why respondents listed the learning formats as most or least effective.

The second phase of the study included interviews. The purpose of the interviews was to help the researcher gain a deeper understanding of teacher perceptions of having experienced professional learning in the district that embedded the core adult learning principles (Knowles et al., 2015). Using Fitzgerald's (2014) interview guide, participants were asked to recall a memorable professional learning experience within the district. They were asked to describe the facilitator's effective and ineffective actions within the professional learning experience. The virtual interviews were recorded using Zoom in order to capture the audio. After the interviews were converted into written transcriptions, the researcher searched for repeated words and concepts and coded this information into themes.

The researcher sent a series of six emails to invite all teachers within a rural North Carolina school district to participate in the study. A convenience sample of 112 teachers from the district participated in the study. Of the 112 survey respondents, 54 completed

the open-ended survey items and seven volunteered to participate in the virtual interview phase of the study.

Survey data were analyzed using descriptive statistics. Verbatim responses for the open-ended items in the survey served as another data set for analysis. Responses for the open-ended items were analyzed through frequency in choice and coding for commonalities. For the interviews, verbatim transcriptions were created and coded for themes. Procedures for data analysis were described in detail in Chapter 3.

Limitations of the Study

Several limitations were present within this study. The first limitation of this research related to a time constraint to complete the study. The district in which the study took place strived to remain sensitive to the protection of teacher time. In response, the district asked the researcher to reduce the overall length of the survey by reducing items deemed irrelevant or unnecessary. The reduction in survey items limited the information that was gathered and reduced the generalizability of the results in relation to the study being replicated.

In response to the district's request to decrease the length of the survey, the researcher reduced the number of survey items within each section to accommodate the presented needs and interests of the district and reformatted the layout of the survey items. The researcher removed items based on relevancy and reformatted the layout to reduce the time necessary to complete the survey. The researcher piloted the modified survey to ensure clarity and calculate the approximate time it would take to complete the survey; however, since this was the first time the survey was utilized in this manner, it presented a limitation to the reliability and validity of the results. The remaining survey

items were left intact. The reduction in survey items also required the removal of a corresponding research question from the original study. This change reduced the generalizability of the results as related to the replicated study.

Furthermore, the district showed preference for the survey to be administered during the first few weeks of the school year. The beginning of the school year can be busy for teachers; therefore, the time frame of the study affected the results by limiting the number of responses received. More so, during the last week of this data collection window, Hurricane Florence hit North Carolina. As the storm moved through North Carolina, heavy winds and flooding caused severe damage and power outages. This event affected the results of this study by limiting the number of survey responses received as well as the number of volunteers available to participate in the virtual interview. Since only a small sample of teachers participated in the study, the results may not be representative of the whole population of teachers across the district.

Delimitations of the Study

This study had three delimitations. The first delimitation of this research related to the setting chosen for this study. The researcher chose to conduct research in her own district due to convenience and access. This limited the generalizability of the results, as they do not represent other districts and states.

A second delimitation related to the population chosen for this study. The researcher chose to gather data from a sample of teachers. Roles not classified as teacher positions within the district were excluded from the population of this study. These population exclusions narrowed the scope of information that could have been gathered relating to other district employee perspectives of professional learning experiences

within a district.

A third delimitation included the researcher's decision to conduct virtual interviews instead of in-person interviews as done by Fitzgerald (2014). Virtual interviews presented a challenge in building rapport with participants, which, in turn, may have affected participant openness in sharing personal experiences related to professional learning in the district.

Research Questions and Findings

Based on Fitzgerald's (2014) mixed-methods research, the following research questions guided this replication study:

1. How do teachers understand themselves as adult learners?
2. What are teacher perceptions of having experienced professional learning in a school district that embeds the core adult learning principles?
3. What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district?
4. What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district?

There were a total of 41 specific findings from the analysis of the survey and interview data. The researcher used descriptive statistics to analyze the survey results by measuring the frequencies, percentages, modes, and average scale scores from the Likert items. The researcher used qualitative procedures to analyze the interview results by coding for themes. There were 30 findings from the analysis of survey data, including 24 findings from the Likert items and six from the open-ended response items. There were 11 findings from the analysis of the interview data. The survey item and interview

findings are presented under their correlating research question. Then, additional interview findings related to effective facilitation strategies are presented.

Research Question 1: How do teachers understand themselves as adult learners? The analysis of participant responses to each item within the Adult Learning Scale, which measured how teachers learned best, led to seven findings that are discussed specifically in Chapter 4. In summary, the findings showed that approximately 97% of teachers agreed they learn best when the core adult learning principles are applied in their professional learning experiences. The highest ranked item, "I learn best when the learning is connected to my current work," had 100% agreement from the survey respondents. This statement aligned with the core adult learning principle learner's readiness to learn. Even the lowest ranked item within the Adult Learning Scale, "I learn best when I have some control (choice) over the way I experience learning," had 91% agreement from survey respondents, stressing the importance teachers give to professional learning that aligns to the core adult learning principles overall. This statement aligned with the core adult learning principle learner's self-concept. Within the virtual interviews, teachers shared nine examples of where a professional learning experience was more effective when it engaged the learner's self-concept.

Research Question 2: What are teacher perceptions of having experienced professional learning in a school district that embeds core adult learning principles? The analysis of participant responses to each item within the Professional Learning Experiences Scale, which measured teacher perceptions of the frequency in which their professional learning experiences embedded the core adult learning principles, led to seven findings that are discussed specifically in Chapter 4. In summary, the findings

showed that only about 40% of the responses indicated that the core adult learning principles were frequently embedded into their professional learning experiences. Nearly 60% of the responses indicated that the core adult learning principles were infrequently embedded into their professional learning experiences.

The statement "My professional development experiences within this district have had clear goals for learning" ranked first with about 95% teachers of survey respondents indicating the occurrence to be frequently or occasionally. This statement aligned with the core adult learning principle learner's need to know (Knowles et al., 2015). In the virtual interviews, 57% of the interviewees described four instances where a professional learning experience was more effective when it engaged the learner's need to know.

The statement "My professional development experiences in this school district have helped me connect the new learning to my work" ranked last with approximately 54% of survey respondents indicating the occurrence to be frequently or occasionally. This statement aligned with the core adult learning principle learner's readiness to learn (Knowles et al., 2015). Notably, learner's readiness to learn ranked first in the Adult Learner Scale and last in the Professional Learning Experiences Scale, indicating the disparity between how teachers feel they learn best and how they perceive that their professional learning experiences align with this core adult learning principle. In the virtual interviews, nearly 43% of the teachers described four examples of where a professional learning experience was more effective when it engaged the learner's readiness to learn.

Additionally, the six core adult learning principles (Knowles et al., 2015) were presented as common themes for effective professional learning within the virtual

interviews. Teachers provided numerous examples within their professional learning experiences that indicated the value they placed on the core adult learning principles. Teachers also indicated that effective facilitation strategies within a professional learning experience contribute to a higher level of engagement and meaningfulness of the learning. Effective facilitation strategies described by the interviewees included collaboration, modeling, active learning, resources and materials, and appropriate use of time.

Research Question 3: What are teacher reports of the frequency with which they have experienced job-embedded professional learning formats in a school district? The analysis of participant responses to each item within the Job-Embedded Professional Learning Formats Scale, which measured teacher perceptions of the frequency in which they experienced job-embedded professional learning formats, led to 10 findings that are discussed specifically in Chapter 4. In summary, the findings showed that of the total responses across all nine items within the Job-Embedded Professional Learning Formats Scale, 71% of teachers reported that they at least occasionally experienced job-embedded professional learning formats; however, only about 67% of responses indicated that they were frequently experiencing job-embedded professional learning formats. Approximately 33% of responses indicated that teachers reported they infrequently experienced job-embedded professional learning formats.

The item labeled “Professional Learning Communities” ranked first with approximately 82% of teachers reporting frequently experiencing PLCs as a part of their job-embedded professional learning. The item labeled “Action Research” ranked last with only about 35% of survey respondents indicating the occurrence to be at least

occasionally. Only 11.5% of teachers reported frequently experiencing action research as a part of their job-embedded professional learning. These results pose an interesting discrepancy with PLCs as the first place ranking since DuFour et al. (2016) defined a PLC as "an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve" (p. 4). This discrepancy may suggest a lack of a common understanding of the relationship between PLCs and action research within the district of study.

Research Question 4: What are teacher perceptions of the effectiveness of job-embedded professional learning formats in a school district? Teachers within the study indicated that peer coaching, peer observations, and PLCs were the most effective formats for learning. Professional growth plans, lesson studies, and student work examinations were perceived as the least effective formats for learning. The job-embedded professional learning format peer coaching ranked first as the most effective. Teachers indicated that the least effective job-embedded professional learning format was professional growth plans. Within the open responses, teachers described a professional growth plan as a task dictated by superiors that did not align with their personal needs and goals. These statements are contrary to the research that emphasizes that contract learning in the form of professional growth plans is the most powerful tool in adult education because it guides teachers in reflecting and evaluating their own needs, setting a focus for learning, and working through an action plan to meet specific goals (Knowles et al., 2015; Zepeda, 2015).

Conclusions

Two conclusions were drawn by the researcher based on the findings from the

quantitative survey phase and qualitative interview phase of the study and the related literature.

Conclusion 1. Almost all teachers who participated in this study reported that they learned best when the core adult learning principles (Knowles et al., 2015) were applied to their professional learning experiences; however, only about 40% of these teachers indicated that their professional learning experiences frequently embedded the adult learning principles. Approximately 60% of the responses indicated that the core adult learning principles were infrequently embedded into their professional learning experiences. This conclusion was based on the following findings: S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, I1, I2, I3, I4, I5, and I6.

Knowles et al.'s (2015) andragogy in practice model served as the conceptual framework for this study, as it addresses the core adult learning principles that are necessary for effective professional learning. The six core learning principles are the learner's (a) need to know, (b) self-concept, (c) prior experience, (d) readiness to learn, (e) orientation to learning, and (f) motivation to learn. In this study, almost 97% of the total responses across all six items within the Adult Learning Scale indicated that the survey respondents agreed that they learn best when the core adult learning principles are applied in their professional learning experiences. These findings coincide with the work of Knowles et al. (2015), Trivette, Dunst, Hamby, and O'Herin (2009), and other research related to adult learning.

The findings from this study indicated that the rural North Carolina teachers included in this study learn best when the learning is connected to their current work. The statement "I learn best when the learning is connected to my current work" ranked

first with 100% of survey respondents indicating that they agreed with the item. This statement aligned with the core adult learning principle learner's readiness to learn (Knowles et al., 2015). These findings support the work of Knowles et al. (2015) as they stated, "Adults become ready to learn those things they need to know and be able to do in order to cope effectively with their real-life situations" (p. 45). Furthermore, Knowles et al. discussed how some adults do not become ready to learn through their own experiences. Rather, some adults show an increased readiness to learn after being exposed to increased performance expectations or exemplary practices of others (Knowles et al., 2015).

Despite the research and teacher reports of learning best when professional learning embeds the core adult learning principles (Knowles et al., 2015), this study found that only about 40% of the teachers are frequently experiencing professional learning that embeds the adult learning principles; therefore, there is a misalignment between adult learning and a majority of the professional learning experiences within the district of study.

Conclusion 2. Most teachers who participated in this study reported that they at least occasionally experienced job-embedded professional learning formats. Of the total responses across the Job-Embedded Professional Learning Formats Scale, 71% of teachers reported at least occasionally having experienced job-embedded professional learning formats; however, only about 67% of the responses indicated that they were frequently experiencing job-embedded professional learning formats. Approximately 33% of responses indicated that teachers reported that they were infrequently experiencing job-embedded professional learning formats. This conclusion was based on

the following findings: S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S24, O1, O2, O3, O4, O5, O6, I1, I2, I3, I4, I5, and I6.

Through open-ended survey questions, teachers in the study reported that the following job-embedded professional learning formats were most effective: peer coaching, peer observations, and PLCs. Additionally, teachers reported that the following job-embedded professional learning formats were least effective: professional growth plans, lesson studies, and student work examinations.

Job-embedded professional learning occurs during the workday and is related to site-specific concerns. "Job-embedded learning occurs in the context of the job setting and is related to what people learn and share about their experiences, reflecting on specific work incidents to uncover newer understandings or changes in practices or beliefs" (Zepeda, 2015, p. 3).

Research (Creemers et al., 2013; Darling-Hammond & Falk, 2013; Zepeda, 2015) supports the idea that effective job-embedded professional learning occurs when educators are provided appropriate, differentiated coaching and the opportunity to collaborate with colleagues about matters such as student work and common assessment. This research coincides with the findings from this study as peer coaching, peer observations, and PLCs address these suggestions. During peer coaching, teachers engage in self-directed learning as they choose which area of teaching to focus their assistance. According to Zepeda (2015), peer coaching should be differentiated to meet the needs of the individual, based on their experience, maturity, and knowledge. "Effective coaches know when and how to stretch, when and how to challenge, and when and how to guide those whom they are coaching" (Zepeda, 2015, p. 65). During peer

observations, teachers observe other teachers during instruction and participate in conversations about instructional practices. Through these conversations, teachers reflect on their practices and collaboratively develop strategies to promote positive change in their classrooms. Peer observations, Zepeda (2015) stated,

> hold potential to connect peers to the purpose of learning more about their practices, to build system and student capacity while simultaneously supporting the needs of teachers who consistently focus their attention, best interests, and hearts on students and their learning needs. (p. 48)

DuFour (2004) described three big ideas related to PLCs, including a focus on student learning, a collaborative culture among teachers, and effectively utilizing data to make instructional decisions. PLCs support adult learning principles by establishing purpose, encouraging collaboration, and motivating teachers to promote improved student learning (Knowles et al., 2015).

In summary, job-embedded professional learning formats embed the core principles of adult learning (Knowles et al., 2015). Despite the research that suggests job-embedded professional learning formats to be effective for adult learning, this study found that only about 67% of teachers are frequently experiencing job-embedded professional learning formats; therefore, the incorporation of additional job-embedded professional learning formats may promote effective learning among teachers in the district.

Comparison of Replication Study to Original Study

For this study, the researcher used a form of replication—extending Fitzgerald's (2014) study on how teachers understand themselves as adult learners and perceive their

professional learning experiences. Fitzgerald's research was conducted to study secondary teachers' understandings of themselves as learners and their perceptions of professional learning experiences. The research took place in an urban school district within Connecticut. Fitzgerald developed her own survey and interview instruments to answer her research questions. Using the same conceptual framework and a modified methodology of surveys and follow-up interviews, this research extends Fitzgerald's study to measure the generalizability of her findings while studying a different population and setting. This replication study presented similar conclusions to Fitzgerald's original study. Fitzgerald's research conclusions are presented below.

Fitzgerald's (2014) Conclusion 1. Fitzgerald stated,

> On the one hand, more than half of participating urban, secondary school teachers perceived they learned best when the core principles of adult learning (Knowles et al., 2015) are applied during their professional development experiences. On the other hand, nearly 90% of the participating urban, secondary school teachers indicated they occasionally or rarely experienced adult learning principles (Knowles et al., 2015) in their professional development experiences. (p. 197)

In this replication study, almost all teachers who participated in this study reported that they learned best when the core adult learning principles (Knowles et al., 2015) were embedded into their professional learning experiences. In Fitzgerald's (2014) study, more than half reported that they learned best when the core adult learning principles (Knowles et al., 2015) were embedded into their professional learning experiences.

In this replication study, only about 60% of these teachers reported that the core

adult learning principles were frequently embedded into their professional learning experiences. In Fitzergerald's (2014) study, 90% of teachers reported that the core adult learning principles were occasionally or rarely embedded into their professional learning experiences.

Though the percentages were different, the replicated study and original study both demonstrated a misalignment between adult learning principles and professional learning experiences within the district. This conclusion indicates the results of the study may be generalizable.

Fitzgerald's (2014) Conclusion 2. Fitzgerald wrote,

> One the one hand, participating urban, secondary school teachers found professional development sessions that incorporate evidence-based professional development…formats (professional learning communities, peer coaching) to be the most effective. On the other hand, nearly 90% of the respondents reported that they only occasionally or rarely experienced these … formats in their professional development experiences. (p. 201)

In this replication study, most teachers found peer coaching, peer observations, and PLCs to be the most effective job-embedded professional learning formats. In Fitzgerald's (2014) study, most teachers found PLCs, peer coaching, and data teams to be the most effective job-embedded professional learning formats.

In this replication study, approximately 33% of responses indicated that teachers reported they infrequently experienced job-embedded professional learning experiences. In Fitzgerald's (2014) study, 90% of responses indicated that teachers infrequently experienced job-embedded professional learning experiences. While the percentages

vary between the two studies, they both present a gap in the professional learning experiences of teachers. This conclusion indicates the results of the study may be generalizable.

Recommendations for Practice

Two recommendations for practice are presented based on the researcher's conclusions from the study.

Recommendation 1. District leaders, school leaders, and facilitators of professional learning should design and implement professional learning opportunities that embed the core adult learning principles (Knowles et al., 2015).

The findings from this study suggest that the rural North Carolina teachers in this study learn best when core adult learning principles (Knowles et al., 2015) are embedded into professional learning experiences. These findings are supported by research related to adult learning (Knowles et al., 2015). The findings also show that many teachers infrequently experience professional learning that is based on adult learning principles (Knowles et al., 2015). Since effective professional learning is directly correlated with student achievement, district leaders, school leaders, and facilitators of professional learning should design and implement professional learning opportunities that embed the core adult learning principles (Knowles et al., 2015).

Recommendation 2. District leaders, school leaders, and facilitators of professional learning should provide professional learning opportunities through job-embedded professional learning formats (Croft et al., 2010).

The findings from this study suggest that about a third of the rural North Carolina teachers in this study infrequently experience job-embedded professional learning

formats. Research (Croft et al., 2010; Zepeda, 2015) suggests that job-embedded professional learning formats are meaningful and relevant to teacher learning. Teachers learn best when their professional learning experiences embed the core adult learning principles (Knowles et al., 2015). These principles are integrated into job-embedded professional learning formats, such as peer coaching, peer observations, and PLCs. Since job-embedded professional learning formats effectively integrate the core adult learning principles (Knowles et al., 2015), district leaders, school leaders, and facilitators of professional learning should provide professional learning opportunities through job-embedded professional learning formats (Croft et al., 2010).

Recommendations for Future Research

The following are recommendations for future research.

Recommendation 1. Other researchers should repeat this study in other school districts or states with varying demographics to increase the generalizability of the results.

One of the delimitations of the study was that the researcher chose to conduct research in her own district due to convenience and access. This limited the generalizability of the results as they do not represent other districts and states.

Recommendation 2. Other researchers could repeat this study with a population inclusive of varying educational roles to gather information about their understandings of themselves as adult learners and their perceptions of their professional learning experiences.

A second delimitation of the study related to the population chosen for this study. The researcher chose to gather data from a sample of teachers. Roles not classified as

teacher positions within the district were excluded from the population of this study. These population exclusions narrowed the scope of information that could have been gathered relating to other district employee perspectives of professional learning experiences within a district.

Recommendation 3. Other researchers could extend the scope of this study by exploring the relationship between teacher professional learning and their classroom practices.

The basis of this study was centered on the relationship between professional learning and student learning. While this study measured teacher understandings of themselves as learners and their perceptions of their professional learning experiences, other researchers could also explore the impact of specific professional learning experiences and formats on student achievement.

Summary of Chapter

The purpose of this mixed-methods study investigated how teachers understand themselves as adult learners and perceive their professional learning experiences within a rural school district in North Carolina. This chapter reported the conclusions of the study and the researcher's recommendations for practice and future research.

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Appendix A

Modified Survey

Section I: Adult Learner

Please answer the following question related to how many years of teaching experience you have in this school district.

1. How many years of teaching experience do you have in this school district?
    a. This is my first year as a teacher in this district.
    b. 1 to 5 years
    c. 6 to 11 years
    d. 12 to 17 years
    e. 18 to 23 years
    f. 24 to 29 years
    g. 30 years or more

This section contains 6 statements about your understanding of yourself as a learner. Read each statement carefully. For each, please select the response choice that best describes your level of agreement with this statement.

	6	**5**	**4**	**3**	**2**	**1**
	Agree Very Strongly	**Agree Strongly**	**Agree**	**Disagree**	**Disagree Strongly**	**Disagree Very Strongly**
I learn best when I know the purpose of learning.						
I learn best when I have some control (choice) over the way I experience learning.						
I learn best when I can connect the learning topic to my prior knowledge.						
I learn best when the learning is connected to my current work.						
I learn best when I am able to question, inquire, or problem solve during a learning experience.						
I learn best when I can select the learning experience that meets my needs.						

Section II: Professional Development Experiences

This section contains 6 statements about your understanding of your professional development experiences in this school district. Read each statement carefully. For each, please select the response choice that best describes the frequency with which you have experiences the practice.

	6	5	4	3	2	1
	Very Frequently	**Frequently**	**Occasionally**	**Rarely**	**Very Rarely**	**Never**
My professional development experiences in this school district have had clear goals for learning.						
My professional development experiences in this school district have provided me with opportunities to choose the way (how) I learn.						
My professional development experiences in this school district have helped me make connections to previous learning.						
My professional development experiences in this school district have helped me connect the new learning to my work.						
My professional development experiences in this school district have provided me with opportunities for peer collaboration.						
My professional development experiences in this school district have provided me with opportunities to choose what (content) I learn based on my needs.						

Section III: Which professional development formats have you experienced in this school district?

For each of the professional development formats listed below, select the response choice that best describes the frequency with which you have experienced the strategy in your professional learning experiences in this school district.

	6	5	4	3	2	1
	Very Frequently	**Frequently**	**Occasionally**	**Rarely**	**Very Rarely**	**Never**
Action Research *(conducting research within the classroom/school with the intent to inform and improve future practices)*						
Peer Coaching *(two or more educators work together to reflect on instructional practices and curriculum)*						
Peer Observations *(a colleague observes a classroom in action and then engages in reflective feedback)*						
Data Teams *(a group of teachers within a common subject and grade level who participate in a collaborative approach to making data-driven decisions)*						
Student Work Examinations *(teachers discuss and reflect upon*						

student work to establish a common understanding)						
Professional Growth Plans *(learning contracts or action plans that occur between a teacher and a supervisor)*						
Lesson Studies *(teachers collaboratively research and plan, teach, observe, discuss, revise, and reflect on a single lesson)*						
Mentoring *(a relationship in which one educator advises or trains another educator)*						
Professional Learning Communities *(educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve)*						

Overall, which format do you feel is most effective?

Why? Please provide details.

Overall, which format do you feel is least effective?

Why? Please provide details.

Section IV: Information About You

Please answer each of the questions that follow:

Which of these choices most closely describes the type of school in which you work?

Elementary/Primary (Pre-Kindergarten through 5th grade)

Middle (6th grade through 8th grade)

High (9th grade through 12th grade)

What is the highest degree you have earned?

Bachelor's degree

Master's degree

Master's plus (e.g., 6th year or any credits beyond a Master's degree)

Doctoral degree (e.g., Ph.D., Ed.D.)

What is your gender?

Male

Female

Would you be willing to participate in a virtual, follow-up interview about your perceptions of your learning and your professional development experiences in your school district? The interview will be recorded and will take about 30 minutes. It will be scheduled at a mutually agreed upon time.

If you would like to participate in the follow-up interview, please click the following link.

LINK

Please note: The link will direct you to a new page, not associated with your anonymous survey responses. This link will allow you to send your contact information to the researcher and indicate which type of school in which you work for categorical purposes. The researcher will use the contact information you provide only to communicate with you to schedule a virtual interview meeting time at a mutually agreed upon time.

Teacher Interview Contact Form

[Interview contact form is linked externally on the survey.]

I would like to participate in a virtual, follow-up interview related to how I understand myself as a learner and perceive my professional development experiences within the district. I understand that the interview will be recorded, last up to 30 minutes, and be scheduled at a mutually agreed upon time.

Please provide your contact information, which will only be used in scheduling the interview.

Name: _____
Email: _____

Which of these choices most closely describes the type of school in which you work?

- Elementary/Primary (Pre-Kindergarten through 5th grade)
- Middle (6th grade through 8th grade)
- High (9th grade through 12th grade)

Appendix B

Fitzgerald's (2014) Survey

Section I: How do I understand myself as a learner?
This section contains 12 statements about your understanding of yourself as a learner. Read each statement carefully. For each, please select the response choice that best describes your level of agreement with the statement.

1. I learn best when I know why something is important for me to know or be able to do.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

2. I learn best when I am aware of the purpose of learning (goals and objectives).

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

3. I learn best when I have some involvement in planning my learning experience.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

4. I learn best when I have some control (choice) over the way I experience learning.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

5. I learn best when I can connect the learning topic to my prior knowledge.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

6. I learn best when I can share my prior knowledge or resources to enhance the learning experience.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

7. I learn best when the learning is connected to my day-to-day work and current issues.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

8. I learn best when I can see the immediate application of new learning to my current work.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

9. I learn best when I am able to question, inquire, or problem solve during a learning experience.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

10. I learn best when I have opportunities to assess or monitor my own learning.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

11. I learn best when I can select the learning experience that meets my needs.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

12. I learn best when the learning experience supports my professional growth.

6	5	4	3	2	1
Agree Very Strongly	Agree Strongly	Agree	Disagree	Disagree Strongly	Disagree Very Strongly

13. Please share any comments about yourself as a learner.

Section II: How Do I Understand My Professional Development Experiences in this School District?

This section contains 12 statements about your understanding of your professional development experiences in this school district. Read each statement carefully. For each, please select the response choice that best describes the frequency with which you have you experienced the practice.

14. My professional development experiences in this school district have had clear goals for learning.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

15. My professional development experiences in this school district have had real world learning objectives.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

16. My professional development experiences in this school district have provided me with opportunities to direct what (content) I learn.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

17. My professional development experiences in this school district have provided me with opportunities to choose the way (how) I learn.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

18. My professional development experiences in this school district have provided me with opportunities to build upon my real world experiences.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

19. My professional development experiences in this school district have helped me make connections to previous learning.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

20. My professional development experiences in this school district have helped me connect the new learning to my day-to-day needs.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

21. My professional development experiences in this school district have provided me with opportunities to gain additional experiences in an area relevant to my work.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

22. My professional development experiences in this school district have provided me with opportunities for peer collaboration.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

23. My professional development experiences in this school district have provided me with opportunities to evaluate my learning.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

24. My professional development experiences in this school district have motivated me to learn by having immediate relevance to my day-to-day needs.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

25. My professional development experiences in this school district have provided me with opportunities for increased professional growth.

6	5	4	3	2	1
Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never

26. Please share any comments about your professional development experiences in your school district.

Section III: Which Professional Development Strategies Have You Experienced in this School District?

For each of the professional development strategies listed below, select the response choice that best describes the frequency with which you have experienced the strategy in your professional learning experiences in this school district. Following the list of strategies is a series of open-ended questions in which you can add as much detail as you like.

	6	5	4	3	2	1
	Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never
27. Pre-session information						
28. Self-instruction						
29. Warm-up exercises						
30. Take-home activities						
31. Role playing						
32. Simulations						
33. Active learning						
34. Real life application						
35. Problem solving tasks						
36. Self-assess my learning						
37. Identify my own solutions						
38. Determine next steps for my learning						

39. Overall, which strategy do you feel is most effective?

40. Why? Please provide details.

41. Overall, which strategy do you feel is least effective?

42. Why? Please provide details.

Section IV: Which Professional Development Formats Have You Experienced in this School District?

For each of the professional development formats listed below, select the response choice that best describes the frequency with which you have experienced the format in your professional learning experiences in this school district. Following the list of formats is a series of open-ended questions in which you can add as much detail as you like.

	6	5	4	3	2	1
	Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never
43. Action Research						
44. Case Discussions						
45. Peer Coaching						
46. Critical Friends						
47. Data Teams						
48. Examine Student Work						
49. Professional Growth Plans						
50. Lesson Study						
51. Mentoring						
52. Portfolios						
53. Professional Learning Communities						
54. Study Groups						

55. Overall, which format do you feel is most effective?

56. Why? Please provide details.

57. Overall, which format do you feel is least effective?

58. Why? Please provide details.

Section V: Information About You
Please answer each of the questions that follow.

59. What is the highest degree you have earned?
- Bachelor's degree
- Master's degree
- Master's plus (e.g., 6th year or any credits beyond a Master's degree)
- Doctoral degree (e.g., Ph.D., Ed.D.)

60. How many years of teaching experience do you have?
- 1 to 5 years
- 6 to 11 years
- 12 to 17 years
- 18 to 23 years
- 24 to 29 years
- 30 years or more

61. What is your gender?
- Male
- Female

62. Would you be willing to participate in a follow-up in-person interview about your perceptions of your learning and your professional development experiences in your school district? The interview will be recorded and will take about 45 minutes. It will be scheduled at a mutually agreed upon time. You will receive a $5.00 gift card to Dunkin' Donuts for participating in the interview.
- Yes, I would like to be interviewed. [Directs to an interview contact form.]
- No, thank you. [Directs to the raffle drawing page]

Raffle Drawing
[Raffle drawing page is linked with the survey pages.]

60. Would you like to enter a raffle drawing for one of four $25.00 gift certificates to Amazon.com to be awarded at the end of the study?
- Yes, I would like to enter the drawing. [Directs to raffle drawing contact form]
- No, thank you. [Directs to the end page]

Raffle Drawing Contact Information
[Raffle drawing contact information page is linked with the raffle drawing page.]

Please provide the following contact information to enter the raffle drawing. You will be notified if you are a winner of one of the four $25.00 gift certificates to Amazon.com. This contact information will be kept confidential.

Name: _____
E-mail: _____
Phone: _____

Teacher Interview Contact Form
[Interview contact form is linked with the survey pages.]

I would like to participate in a follow-up in-person interview related to my perceptions of my learning and my professional development experiences in my school district. I understand that the interview will be recorded, last about 45 minutes, and be scheduled at a mutually agreed upon time. I understand that I will receive a $5.00 gift card to Dunkin' Donuts at the end of the interview.

Please provide your contact information, which will only be used in scheduling the in-person interview.

Name: _____
E-mail: _____
Phone: _____

Appendix C

Fitzgerald (2014) Permission for Modifications to Survey

Re: Request for Permission to Use Modified Survey Instrument

FJ Fitzgerald, Jessica [redacted]
6/5/2018 1:05 PM

To: Desirae Ball

Hello Desirae,

I am sorry for the delay. We are a few days away from the end of the school year, and it is always busy. I spoke to Dr. Brown, and I will give you permission to use the modified survey instrument in your dissertation study. Best of luck. I am looking forward to seeing your results. Please share when they are available, and if I can be of any assistance, please let me know. Thank you.

Dr. Jessica Fitzgerald

From: Desirae Ball <dball@gardner-webb.edu>
Sent: Tuesday, May 29, 2018 12:39 PM
To: Fitzgerald, Jessica
Subject: Re: Request for Permission to Use Modified Survey Instrument

Dr. Fitzgerald,

Thank you for your response. My advisor is Dr. Sydney Brown. Her email is skbrown@gardner-webb.edu.

I look forward to hearing back from you. Let me know if you have any further questions.

Desirae Ball

On May 29, 2018 9:35 AM, "Fitzgerald, Jessica" [redacted] wrote:

> Good morning Desirae,
>
> This sounds really interesting. Do you have an academic advisor for your work that I could have the contact information for?
>
> **Dr. Jessica Fitzgerald**

From: Desirae Ball <dball@gardner-webb.edu>
Sent: Friday, May 25, 2018 8:58 PM
To: Fitzgerald, Jessica
Subject: Request for Permission to Use Modified Survey Instrument

Dr. Fitzgerald,

My name is Desirae Ball, and I am currently working on my doctorate in curriculum and instruction through Gardner-Webb University. I intend to replicate (through extension) your dissertation titled *Urban Secondary School Teacher's Understandings of Themselves as Adult Learners and Their Perceptions of Their Professional Development Experiences*. I am seeking your permission to use a modified version of your survey instrument for my research.

The purpose of my study will be to extend the generalization of your original study, build upon previous research, and add related knowledge to your original study. I will follow the methods used in your original study, with some extensions, to determine whether the same results can be found.

Rationale for Modifications to Survey: I met with my district's leaders in which the study will take place to review your original survey. The district's leaders made requests for the survey to be reduced in length due to other surveys that classroom teachers will be asked to complete within a similar timeframe of this study. The goals for this modification were to reduce the amount of time necessary to complete the survey, and, therefore, increase the response rate. To reduce the survey, I focused on the most relevent job-embedded professional learning formats to the district and removed questions associated with other learning formats. Additionally, I consolidated certain questions that closely related to one another. I also removed the professional learning strategies section from your original survey as this information was deemed accessible to the my district's leaders through other sources of collected data. Finally, I slightly modified the formatting of the survey items in an attempt to further reduce the amount of time necessary for respondents to complete the survey. The remaining survey items were left intact according to your original survey. The modified survey is divided into four sections to investigate how teachers understand themselves as adult learners and perceive their job-embedded professional learning experiences within the district. I have attached a copy of the modified survey for your review.

*No modifications will be made to your in-person interview guide. However, the interviews will be conducted via telephone instead of in-person.

To summarize my plan for research:
The researcher will replicate the original work of Fitzgerald (2014) while using population and context-driven extensions as well as method and measurement-driven extensions (Laerd, 2012). The population extension will include a sample of Kindergarten through twelfth grade classroom teachers instead of Fitzgerald's (2014) sixth through twelfth grade classroom teachers. The context extension will include a rural, North Carolina school district instead of Fitzgerald's (2014) urban, Connecticut school district. The method and measurement extensions include modifications to the survey instrument to accommodate the particular needs and interests of the North Carolina school district. The survey items were reduced and reformatted to only include items considered pertinent to the district. Pertinence was determined based on the current formatting and structure of professional learning within the district as well as the consideration of terminology familiar to the teachers within the district. The remaining survey items were left intact as originated by Fitzgerald (2014). As an additional modification, the interviews will be conducted via telephone instead of Fitzgerald's (2014) in-person interviews to best accommodate the scheduling needs of respondents located in various across large distances. The data collected from the surveys and interviews, in conjunction with the related literature, will be triangulated to form an analysis of multiple sources.

I contacted you previously using the email address listed on your dissertation, but I was not sure if you were still utilizing that address. I found this email address online and hope to receive a response as promptly as possible as my proposal defense for my dissertation is approaching.

Thank you for your time and consideration, and I look forward to hearing back from you regarding permission to use a modified version of your survey instrument. If you would like any additional information, please let me know.

Desirae Ball
dball@gardner-webb.edu

Appendix D

Interview

Virtual Interview Guide

Thank you for volunteering to participate in this interview. As you know, my study aims to gather information about your understanding of yourself as a learner and your perceptions of your professional development experiences in this school district.

During this interview, I would like you to tell me about a recent memorable professional development experience in this school district. I expect the interview to last approximately 30 minutes. You can choose to stop at any time.

With your permission, I would like to create a digital record of this interview. Please know that anything you share with me will be treated in confidence. Do you have any questions before we begin? May I begin recording this interview?

[RECORDING DEVICE IS ON]

Thank you for volunteering to participate in this interview. Have you reviewed the informed consent form? Do you have any questions or concerns about the study or this interview?

1. Let's begin! Take a minute to reflect on a recent memorable professional development experience in this school district—one that really stands out among others you have attended.

   Pause and give the interviewee time to reflect.

   Please describe in detail the professional development experience that you have in mind.
   a. What would I see and hear if I were an observer in that session?
   b. What are the participants doing?
   c. What is the facilitator doing?
   d. What do the conversations sounds like?

2. What were the circumstances leading up to this particular training?
   a. What was its purpose?
   b. Why did you attend?

3. Reflecting on this experience now, what exactly did the facilitator do or not do that was especially effective or ineffective?
   a. *Prompt for examples*—"Tell me more." "What did that look like?" "Please go on."
   b. *Restate in your own words and check for accuracy*— "Let's see if I'm clear about this…" "Did I hear you say…"

4. Why were the facilitator's actions effective, or what more effective action might have been expected?

   a. *Prompt for examples*— "Tell me more." "What did that look like?" "Please go on."
   b. *Restate in your own words and check for accuracy*— "Let's see if I'm clear about this…" "Did I hear you say…"

5. What were the effects or results of the facilitator's actions as they relate to you and your learning?
   a. *Prompt for examples*— "Tell me more." "What did that look like?" "Please go on."
   b. *Restate in your own words and check for accuracy*— "Let's see if I'm clear about this…" "Did I hear you say…"

6. What else would you like to share about your professional development experiences in this district?

Appendix E

Fitzgerald's (2014) Interview

In-person Interview Guide

Thank you for volunteering to participate in this interview. As you know, my study aims to gather information about your understanding of yourself as a learner and your professional development experiences in this school district.

During this interview, I would like you to tell me about a recent memorable professional development experience in this school district. I expect the interview to last approximately 45 minutes. You can choose to stop at any time.

With your permission, I would like to create a digital record of this interview. Please know that anything you share with me will be treated in confidence. Do you have any questions before we begin? May I turn on the recording device?

[RECORDING DEVICE IS ON]

Thank you for volunteering to participate in this interview. Have you reviewed the informed consent form? Do you have any questions or concerns about the study or this interview?

1. Let's begin! Take a minute and reflect on a recent memorable professional development experience in this school district—one that really stands out among others you have attended.
    a. Pause and give the interviewee time to reflect.

2. Please describe in detail the professional development experience that you have in mind.
    a. What I would see and hear if I were an observer in that session?
    b. What are the participants be doing?
    c. What is the facilitator doing?
    d. What do the conversations sound like?

3. What were the circumstances leading up to this particular training?
    a. What was its purpose?
    b. Why did you attend?

4. Reflecting on this experience now, what exactly did the facilitator do or not do that was especially effective or ineffective?
    a. Prompt for examples—"Tell me more." "What did that look like?" "Please go on."
    b. Restate in own words and check for accuracy—"Let's see if I'm clear about this . . ." "Did I hear you say . . ."

5. Why were the facilitators' actions effective, or what more effective action might have been expected?
    a. Prompt for examples—"Tell me more." "What did that look like?" "Please go on."
    b. Restate in own words and check for accuracy—"Let's see if I'm clear about this . . ." "Did I hear you say . . ."

6. What were the effects or result of the facilitator's actions as they relate to you and your learning?
    a. Prompt for examples—"Tell me more." "Please go on."
    b. Restate in own words and check for accuracy—"Let's see if I'm clear about this . . ." "Did I hear you say . . ."

7. What else would you like to share about your professional development experiences in this district?

Appendix F

Recruitment Emails 1-9

Email 1

Dear Colleague:

I am a doctoral candidate in the Gardner-Webb University doctoral program in Curriculum and Instruction. I invite you to participate in my research about your understandings of yourself as a learner and your perceptions of your professional development experiences in this school district.

The purpose of this study is to gather information about how you understand yourself as a learner and perceive your professional development experiences in this school district. The information gathered from this study may be used to support the district in developing professional development experiences that better meet the needs of teachers.

Your participation in this study is voluntary, as is responding to any or all of the items in the survey. Your responses will be confidential. They will not be associated with your name or school and will be groups with the answers of others in any reports, write-ups, or presentations.

Your understanding of who you are as a learner and your opinions about your professional development experiences are important, and I hope you will consider participating in this study.

In a few days, you will receive a link to an Internet-based survey that was generated for your individual responses. If you choose to participate, it will take you about 10 minutes to complete the survey. Your completion and submission of the online survey constitutes consent to participate in the study and for me to use the anonymous information you provide in the study write-up and any presentations or publications.

You can also volunteer to participate in a virtual, follow-up interview that should take approximately 30 minutes to complete. The interview will be scheduled at a mutually convenient time.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative.

Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 2

Dear Colleague:

Three days ago, you received an email inviting you to participate in a study designed to gather information on your understandings of yourself as a learner and your perceptions of professional development experiences in this school district.

To participate, click on the link below, and you will be directed to the online survey. Once there, follow the directions for answering the survey items. Your responses will be anonymous and confidential. The survey should only take about 10 minutes to completed. The link was generated specifically for your individual responses, so please do not forward it to others.

LINK

You can also volunteer to participate in a virtual, follow-up interview that should take about 30 minutes and will be scheduled at a mutually convenient time.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative.

Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 3

Dear Colleague:

You recently received an email inviting you to participate in a study designed to gather information on your understandings of yourself as a learner and your perceptions of your professional development experiences in this school district.

To participate, click on the link below, and you will be directed to the online survey. Once there, follow the directions for answering the survey items. Your responses will be anonymous and confidential. The survey should only take about 10 minutes to completed. The link was generated specifically for your individual responses, so please do not forward it to others.

LINK

You can also volunteer to participate in a virtual, follow-up interview that should take about 30 minutes and will be scheduled at a mutually convenient time.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative.

Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 4

Over the past two weeks, you received emails inviting you to participate in a study designed to gather information on your understandings of yourself as a learner and your perceptions of your professional development experiences in this school district.

To participate, click on the link below, and you will be directed to the online survey. Once there, follow the directions for answering the survey items. Your responses will be anonymous and confidential. The survey should only take about 10 minutes to completed. The link was generated specifically for your individual responses, so please do not forward it to others.

Survey access will end DATE.

LINK

You can also volunteer to participate in a virtual, follow-up interview that should take about 30 minutes and will be scheduled at a mutually convenient time.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative.

Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 5

Over the past few weeks, you received emails inviting you to participate in a study designed to gather information on your understandings of yourself as a learner and your perceptions of your professional development experiences in this school district.

To participate, click on the link below, and you will be directed to the online survey. Once there, follow the directions for answering the survey items. Your responses will be anonymous and confidential. The survey should only take about 10 minutes to completed. The link was generated specifically for your individual responses, so please do not forward it to others.

Survey access will end DATE.

LINK

You can also volunteer to participate in a virtual, follow-up interview that should take about 30 minutes and will be scheduled at a mutually convenient time.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative.

Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 6

Dear Colleague:

This is a reminder this is the final opportunity to complete the online survey about your understandings of yourself as a learner and your perceptions of your professional development experiences in this school district.

To participate, click on the link below, and you will be directed to the online survey. Once there, follow the directions for answering the survey items. Your responses will be anonymous and confidential. The survey should only take about 10 minutes to completed. The link was generated specifically for your individual responses, so please do not forward it to others.

Survey access will end DATE.

LINK

You can also volunteer to participate in a virtual, follow-up interview that should take about 30 minutes and will be scheduled at a mutually convenient time.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative. Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 7

Dear Colleague:

Thank you for participating in the survey portion of my research study by providing information on your understandings of yourself as a learning and your perceptions of your professional development experiences in this school district.

I received your interview contact form where you indicated through the Internet survey that you would like to volunteer to participate in a virtual interview.

In a few days, you will receive an email from me to schedule the interview at a time that is mutually convenient.

I have attached the informed consent form for the interview for your review. Please know that I am the only person who will have access to your responses. Your individual answers will be confidential and will not be associated with you or your school.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative. Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 8

Dear Colleague:

Thank you for participating in the survey portion of my research study by providing information on your understandings of yourself as a learning and your perceptions of your professional development experiences in this school district.

Based on our previous correspondence, we set the following time, day, and date for a virtual interview that will last approximately 30 minutes.

Please know that I am the only person who will have access to your responses. Your individual answers will be confidential and will not be associated with you or your school.

Thank you for your time and consideration to participate in this research. It is only with support from educators like you that this study can be successful and informative. Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu

Email 9

Dear Colleague:

Thank you for participating in the interview portion of my research study by providing information on your perceptions of your professional development experiences in this school district.

Please contact me at any time for further information. You may also contact my research advisor, Dr. Brown, by email at skbrown@gardner-webb.edu.

Sincerely,

Desirae Ball
Doctoral Candidate at Gardner-Webb University
dball@gardner-webb.edu