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Michelle Maclin

Concordia University - Portland

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Concordia University–Portland
College of Education
Doctorate of Education Program

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A Case Study: The Influence of Literacy Professional Development on Teaching Practices and
Teacher Self-Efficacy

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Concordia University–Portland
College of Education

Dissertation submitted to the Faculty of the College of Education
in partial fulfillment of the requirements for the degree of
Doctor of Education in
Transformational Leadership

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Concordia University–Portland

2018

Abstract

This case study was designed to explore how professional development for teachers in literacy and reading instruction was perceived by teachers as influencing their levels of self-efficacy, teaching practices, as well as affecting achievement levels for students. The population for the study was 13 grade 3–5 teachers from an urban elementary school in the southern portion of the United States. The research questions for the study included: What was the perception of teachers concerning the training received and the usefulness for teaching literacy? What aspects of training did teachers find most beneficial? What is the perception of teachers' level of efficacy after the professional development training? What is the teachers' perception of changes in instructional practices after the professional development training? What trends were noted in the student achievement scores of the *i-Ready* test after teacher participation in professional development? Teachers were divided into two groups. Cohort A received literacy professional development, while Cohort B did not and continued with current instructional practices. Task cards were introduced during the professional development as a resource for teachers when providing literacy instruction. Tasks contained all the necessary information and materials for providing instruction that result in increased student achievement. Teachers found the questioning embedded within task cards to be extremely beneficial, as a resource. The data revealed positive trends in student achievement on *i-Ready* assessments after teachers' participation in professional development in literacy.

Keywords: professional development, literacy instruction, reading comprehension, teacher self-efficacy, Bandura, reading strategies

Dedication

To my beloved husband, who spent countless hours interceding for me and supporting our family as I completed this journey: you are my world, and I absolutely adore you! To my sons, I appreciate your sacrifice of time and inspiration. To my family and friends, thank you for your patience, understanding, and love over the past few years as I embraced this venture. This accomplishment would not have been possible without you and your continuous encouragement, so I share this milestone with each of you.

To my sweet Addie, MiMi loves you and can't wait to give you all the attention your little heart desires without distraction.

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First, I wish to acknowledge my principal, who granted me access to intermediate teachers and allowed me to introduce questionnaires, surveys, and professional development training to staff members. I am tremendously grateful for the District Reading Specialist that took time from her schedule to work with me in scheduling and presenting the professional learning session to participants. Additional thanks are extended to those teachers who granted me access into their classrooms and instructional practices by completing surveys, evaluations, and interviews. Their willingness to give of their time and transparency in dialogue regarding literacy instruction and self-efficacy were fundamental to the success of the study.

I would also like to thank my dissertation committee, Dr. Sally Evans, Dr. Kallen Dace, and Dr. Mary Robinson, for their continuous support and reassurance, guidance, patience, availability, and flexibility as we worked through the research and writing process. Their expertise, timely feedback, perspectives, and attention to detail were supremely appreciated for stimulating my thinking and refining my efforts.

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Chapter 1: Introduction

Approximately two-thirds of children in the United States are unable to achieve reading proficiency by the end of third grade (Annie E. Casey Foundation, 2014; National Institute of Child Health and Human Development, 2000). Skills not mastered prior to entering grade four become more difficult to master and cause learners to fall further behind in the rigorous curriculum required (Annie E. Casey Foundation, 2014; National Institute of Child Health and Human Development, 2000). By fourth grade, 47 % of students from economically impoverished backgrounds read below the basic level. National literacy assessments revealed 50% of African-American, 47% Hispanic, and 49% American Indian fourth graders scored below basic on literacy proficiency assessments (National Center for Education Statistics, 2013).

Proficiency in comprehension is a vital skill required for student success in life (Pardo, 2004). Educators need to provide relevant instruction in reading comprehension. These teaching practices in reading instruction should be directed to help students in the meaning-making process, thus comprehension of text (Pardo, 2004). Professional development sessions for teachers in reading should also address the varying learning modalities of kinesthetic, auditory, and visual learners (DeMonte, 2013; Gulamhussein, 2013; Timperley, 2008). Modeling as a professional development strategy allows teachers to view a strategy in use prior to implementation and provides teachers with an idea of what efficacy in the strategy should look like when introducing learning into the classroom setting (DeMonte, 2013; Gulamhussein, 2013). Universal, one-size-fits-all, trainings are not effective when providing professional development opportunities because not all educators require the same support or information and preparation (Gulamhussein, 2013; Timperley, 2008). Sessions should be contoured to meet the needs of the

audience impacted, i.e. primary, intermediate, middle school, and high school (Gulamhussein, 2013).

Specific and targeted learning promotes engagement and motivation, which leads to increased strategy use in any discipline (Gulamhussein, 2013). Literacy instruction remains a complex process requiring educators to demonstrate confident and relevant literary instruction. Researchers conclude educators feel inadequate and ill-prepared to address deficits present with struggling readers (Cantrell & Hughes, 2008; Greenleaf, Schoenbach, Cziko, & Mueller, 2001; Vescio, Ross, & Adams, 2008). There is a need for consistent and ongoing research and evaluation of teacher learning, or professional development, that addresses factors that impact student achievement (Quint, 2011). Additionally, a need exists for research in fundamental reading pedagogy regarding comprehension and how theories impact classroom instruction (Caccamise & Snyder, 2005).

Background, Context, History, and Conceptual Framework for the Problem

Approximately 8.7 million students in grades 4-12 have limited chances of academic success because they are unable to read and comprehend text (Kamil, 2003; Urquhart & Frazee, 2012). Learners have been identified who possess solid foundational skills in decoding and fluency yet struggle with comprehension (Duke, Pressley, & Hilden, 2004; National Reading Panel, 2000; Underwood & Pearson, 2004). The lack of proficiency in vocabulary and comprehension techniques coupled with limited background knowledge further exacerbate pupils' ability to interact appropriately with texts (Caccamise & Snyder, 2005). Responses to comprehension deficits have routinely been reactive rather than proactive, indicating the need for a paradigm shift targeted at identifying more preventative measures of reducing deficits in reading comprehension (Caccamise & Snyder, 2005). To improve student reading abilities,

teachers need to know how to implement literacy instruction within the classroom (Urquhart & Frazee, 2012).

Strategies are exercises introduced and implemented during instruction that result in achieving a specific learning outcome (Mayer, 1996; McCrudden, Perkins, & Putney, 2005). Providing strategy instruction, techniques, and approaches, to students in literacy expands and enhances student ability to respond to passages by equipping them with the tools necessary to engage meaningfully with the text to the degree that cognition occurs. Consistent and accurate strategy use increases enthusiasm and inspires learners to read, which improves reading achievement (Guthrie & Wigfield, 1997; McCrudden, Perkins, & Putney, 2005; Oka & Paris, 1987; Stevens, 1988).

Exposing students to reading strategies equips them for success when faced with any writing tasks. Students feel more prepared to engage in more rigorous reading tasks as self-efficacy and interest in reading is enhanced (McCrudden, Perkins, & Putney, 2005). Teaching reading strategies aids learners in securing and demonstrating mastery in strategy use, which facilitates greater understanding and comprehension in reading (McCrudden, Perkins, & Putney, 2005).

Implementing a multiple strategies approach to instruction has been identified as the most effective means of improving reading comprehension (National Institute of Child Health and Human Development, 2000; Pardo, 2004; Pressley, 2003; Trabasso & Bouchard, 2002). Yet, an investigation into the literature revealed the need to identify the most effective comprehension theories and strategies by grade and subject (Casper, Catton, & Westfall, 1998). Instruction on basic comprehension skills, such as how to predict, question, visualize, make connections, self-monitor, access background knowledge, summarize, clarify, and explain thinking, are

indispensable to pupils making meaning (Caccamise & Snyder, 2005). Therefore, skills need to be taught using a variety of methods. Teaching such diverse skill sets requires persistence and resourcefulness on the part of educators (Underwood & Pearson, 2004).

The framework for this dissertation study is based on Bandura's Social Learning Theory (1977). The theory posited that individuals learn from social interactions within their environment (McLeod, 2016). Bandura's model embraced three dimensions of learning: imitation, modeling, and observation (McLeod, 2016; Smith & Berge, 2009). Bandura suggested that learning was the result of teaching because individuals cannot learn in isolation (Smith & Berge, 2009). Yet individuals learn from the actions, attitudes, and behaviors demonstrated by those within their environment, whether positive or negative (McLeod, 2016). According to the theory, behavioral relationships exist between like entities. Based on this assertion, teachers learn best from other educators because they are like-minded and share similar insights and expertise related to teaching and the learning environment (McLeod, 2016).

Statement of the Problem

The problem is that district data from the study site indicates that approximately 30% of fifth graders, 33% of fourth graders, and 52% percent of third graders are performing below the district established literacy proficiency rate of 70% on quarterly district reading assessments. To support remediation efforts, this research study is designed to investigate the effect teacher participation in professional development has on instruction for students as perceived by teachers after the professional development. A pre-/post- assessment of teacher levels of self-efficacy will be used to further examine teacher confidence levels in teaching literacy skills prior to and after the teacher training.

Purpose of the Study

The purpose of this single case study is to understand how professional development for teachers in literacy and reading instruction is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students.

Research Questions

All research, despite the discipline, originates from a question the research wants to reconcile. Queries generally initiate in a broad manner too expansive for individual study and then dwindle down to more specific and focused questions that can be realistically researched and evaluated (Trochim, 2006). The essential questions to be answered by this study are:

Research Question 1

What was the perception of teachers concerning the training received and the usefulness for teaching literacy? What aspects of the training did the teachers find most beneficial?

Research Question 2

What is the perception of teachers' level of self-efficacy after the professional development training?

Research Question 3

What is the teachers' perception of changes in instructional practices after the professional development training?

Research Question 4

What trends were noted in the student achievement scores of the *i-Ready* test after teacher participation in professional development?

Evaluating changes to teacher efficacy, attitude, and practice both before and after professional learning and whether or not professional development is based on current literacy research provides insight into instructional practices that could ultimately lead to increased student achievement (Heydon, Hibbert, & Iannacci, 2005).

Rationale, Relevance, and Significance of the Study

Effective teaching occurs as a result of professional development that addresses teacher skills, strategies, and subject matter content and not necessarily on experience (DeMonte, 2013). Professional development is the process of educating teachers (Gulamhussein, 2013) using seminars, learning walks, tutoring, exploration, or vertical observation (Darling-Hammond, Chung Wei, Andree, & Richardson, 2009). The goal of professional development is to equip educators with the tools and strategies necessary to provide classroom instruction that will prepare students to engage more cognitively. Traditional professional development opportunities render little change in instruction or student achievement. Yet when professional development is conducted effectively, teachers were endowed with the knowledge and experience needed to successfully navigate learning that achieves results (Gulamhussein, 2013). Professional development conducted and implemented with efficacy alters teaching practices resulting in success for teachers and students that coincide with local, state, and federal guidelines and standards of academic achievement (DeMonte, 2013).

Traditional methods of professional development rely on external subject matter experts acting as the authority on a subject while providing instruction to educators for use in becoming better teachers. Professional development in learning communities present greater opportunities for shared knowledge transfer than the more traditional professional learning approaches (Cochran-Smith & Lytle, 1999; Tschannen-Moran & McMaster, 2009; Vescio, Ross, & Adams,

2008). As a result, a non-prescriptive approach to professional development has replaced the one-size-fits-all ideal with one of collaboration, shared goal setting, and decision making based on professional competence and student needs (Cochran-Smith & Lytle, 1999; Tschannen-Moran & McMaster, 2009; Vescio, Ross, & Adams, 2008). The revised format produces increased accountability where educators set goals through critical discourse and teamwork (Quick, Holtzman, & Chaney, 2009; Tschannen-Moran & McMaster, 2009). Learning derived from professional development sessions should remain ongoing through coaching and with monitoring as a measure of evaluation (Quick, Holtzman, & Chaney, 2009; Tschannen-Moran & McMaster, 2009).

To maintain relevance and engagement throughout the learning experience, collaboration, technology, modeling, assessment, and reflection are integrated into professional development sessions. This system of instructional delivery provides differentiation and meets the needs of individual learners (Gulamhussein, 2013; Timperley, 2008). Efficacy achieved within this type of educational environment allows participants to establish a supportive network or community, as identified by Bandura's Social Learning Theory (Grusec, 1992; McLeod, 2016; Ross & Bruce, 2007; Smith & Berge, 2009; Tschannen-Moran & McMaster, 2009).

Examined for this study are five principles for professional development, as indicated in Gulamhussein's research. These are: time, learning diversity, modeling, coaching, and targeted content (Gulamhussein, 2013). Time should be granted for educators to actively engage in content and material prior to classroom implementation (DeMonte, 2013; Desimone, 2009; Gulamhussein, 2013). Diverse learning opportunities should include instructional opportunities for all learning styles: visual, kinesthetic, and auditory (DeMonte, 2013; Gulamhussein, 2013; Quint, 2011; Timperley, 2008). Modeling provides a demonstration of the activity and action

being implemented as a point of reference to what desired outcomes look like (Gulamhussein, 2013; Tschannen-Moran & McMaster, 2009).

Coaching ensures the material introduced within learning sessions are integrated within the classroom (Commitante, 2014; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005, Gulamhussein, 2013). Targeted content is specific and relevant to the participants and meets development needs (Avalos, 2011; Greenhill, 2010; Quint, 2011; Timperley, 2008). It is not enough for educators to acquire information that will enhance their professional toolbox, but rather they should integrate those strategies into student learning opportunities.

Effective professional development is designed to build teacher efficacy, engagement, and changes in instructional practice (Cantrell & Hughes, 2008; Quick, Holtzman, & Chaney, 2009; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009). Teachers' personal perceptions of their teaching efficacy influence instruction. Instructors who struggle to understand their value as educators have lower efficacy which diminishes instructional impact and achievement (Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009). Teachers with relevant instructional tools demonstrate greater confidence when providing literacy instruction because they are equipped to respond to diverse and specific learner needs using a variety of strategies and techniques that result in increased student achievement (Greenhill, 2010). Research is needed on professional development practices and instructional strategies to ensure learning gains occur (Avalos, 2011; Ross & Bruce, 2007).

Studies reviewed on the topic of reading incorporated both quantitative and qualitative designs to examine the role teacher attitudes, perceptions, beliefs, philosophy, and practices play in the effects of perpetual learning of educators on student achievement (Avalos, 2011; Clarke & Hollingsworth, 2002; Korthagen, 2004, 2010; Penlington, 2008; Snow-Gerono, 2008). An

evaluation of the literature reveals three key factors: professional development format, opportunities for reflection, and teaching experience, as staples in providing effective professional development (Avalos, 2011; Richter, Kunter, Klusmann, Ludtke, & Baumert, 2011; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009).

Definition of Terms and Acronyms

The following terms and acronyms, listed alphabetically, have been used in this study.

Accountable Talk: Instructional approach in which students engage in talk that is meaningful, respectful, and mutually beneficial to both speaker and listener. Accountable talk stimulates higher-order thinking—helping students to learn, reflect on their learning, and communicate their knowledge and understanding.

ELA: English Language Arts – consists of reading, writing, and grammar.

ELA education: Literacy teaching and learning conducted within educational settings (e.g., primary schools).

ELA subject Knowledge and Skills: Knowledge of the purposes, functions, processes, concepts, terminology, facts, skills, and attitudes to be developed in reading and writing which are embodied in the English Language Arts state academic standards.

ELFAS: The English Language Arts Formative Assessment System, ELFAS, is a digital resource developed to provide support for the implementation of the state standards

ERPL: Early Release Professional Learning

General Education Teachers: Teachers who are responsible for teaching all curriculum or learning areas.

Instructional practice: Planning, teaching, and assessment within the learning environment. This includes references to programming, frequency of strategy or skill teaching, use of resources, and supports and barriers to implementation.

Intermediate Students: Elementary aged students in grades three through five.

i-Ready: Reading resource developed by Curriculum Associates that combines a valid and reliable growth measure and individualized instruction for students.

Learning Diversity: Learning that occurs in a variety of active ways, such as readings, role-playing techniques, open-ended discussion of what is presented, live modeling, and visits to classrooms to observe and discuss the teaching methodology (Gulamhussein, 2013).

Literacy: Ability to read and write; competence or knowledge in reading and writing.

Needs Assessment: Systematic approach to studying the state of knowledge, ability, interest, or attitude of educators involving literacy (McCawley, 2009).

Newsela: Newsela is an education technology startup that publishes high-interest news and nonfiction articles daily at five levels of complexity for grades 2-12 using a proprietary, rapid text-leveling process.

Professional Development: Formal in-service training to improve the content knowledge and pedagogical skills of educators. It is a means of enhancing teaching and learning (Quint, 2011).

Questioning Strategy: Method by which students are engaged in the critical thinking process during instruction that leads to comprehension.

Reading Literacy Achievement: Levels of reading comprehension of a school's student population.

ReadWorks: ReadWorks provides K-12 teachers with a library of curated nonfiction and literary articles, along with reading comprehension and vocabulary lessons, formative assessments, and teacher guidance.

School context: School leadership and other variables in the school environment that impact teaching, such as school culture, relationships with other staff and students, and allocation of resources and facilities.

SPARKLE: Acronym for reading strategy to assist students in comprehension. S - Spend time looking at the entire text; P - Prove it (underline or circle evidence); A - Always go back and find the answers; R - Read the question carefully. Reread the entire text; K - Keep a positive attitude; L - Look at all answer choices; E - Eliminate wrong choices.

Special Area Teacher: Teachers who are responsible for teaching non-academic curriculum or learning, such as Physical Education, Music, Art, and Media.

Task Cards: Instructional resource available to teachers. Organized by standards, tasks include standard addressed, learning target, required materials, reading passage, and considerations for English Language Learners.

Teacher Self-Efficacy: Teachers' belief in his or her ability to provide effective instruction to students.

Title I: Provision of the Elementary and Secondary Education Act that provides financial assistance to schools with elevated numbers or percentages of children from low-income families to help ensure that all children meet rigorous state academic standards (United States, Department of Education, Office of State Support, 2015).

TSES: The Teacher Self-Efficacy scale, developed by Tschannen-Moran and Woolfolk-Hoy (2001).

UNWRAP: Acronym for reading strategy to assist students in comprehension. U- Underline the Title; N- Number the paragraphs; W-Walk through the questions; R-Read passage; A-Answer questions; P-Prove answers.

Assumptions, Delimitations, and Limitations

Assumptions

The assumption is that all participants will respond truthfully to surveys, questionnaires, and interviews. It is postulated that the 10-week timeframe allotted for the study will provide an opportunity to explore how professional development for teachers in literacy and reading instruction, is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students. The length of time might also provide insight into other attributes that can influence outcomes relating to student achievement. It is also assumed that outcomes derived from study will be beneficial to teachers and the school participating in study and could potentially be useful to entities outside the participating community that desire to implement findings within its environment.

Delimitations

Delimitations for the study included the sample demographic, sample composition, study site, and data collection instruments. Educators were selected for this study on the impacts of professional development because the role of teachers is vital to preparing students for success beyond secondary learning environments (Kelleher, 2003; Pardo, 2004; Pearrow & Sanchez, 2008). The use of a single site allowed for more targeted professional learning and coaching. The smaller population size was inclusive of all state testing grade levels contributing to the literacy debate yet manageable enough to thoroughly assess the effects of professional development and the potential impact on student achievement. Surveys using Likert scales administered digitally

were identified as the best means for collecting data rather than paper based. This method of data collection addressed time constraints experienced by teachers' schedules because it allows mobility when submitting responses and addresses response tracking and confidentiality of information collected (Henriksen, Jewitt, Price, & Sakr, 2013).

Limitations

Limitations of the study included the use of one school district, a single school site, small population, the reliance on truthful responses from participants, and whether or not respondents understood the questions posed in surveys, interviews, and questionnaires. The length of time for the study was a restraint because the study was conducted over a 10-week period, which could have limited the impact on implementation and student outcomes. Another constraint of the study involved bias that could result from the proximity of working with respondents over several years. Availability and access to site-based Academic Coach and District Reading Specialist were also confines noted for the study. Limited insight of professional development content prior to the learning session was also identified as a drawback of the study.

Summary

Covered in this chapter was the study of how professional development for teachers in literacy and reading instruction, is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students (Commitante, 2014; Quint, 2011). The study's purpose and research questions were also disclosed as the rationale and relevance of the study was conveyed. Study-specific terms were defined to aid in cognition. Assumptions were outlined and delimitations and limitations were discussed. The next chapter will provide an extensive review of the literature regarding professional development and literacy as key components in this study.

Chapter 2: Literature Review

Academic literacy instruction is a complex activity that requires educators to navigate a variety of choices regarding the content being taught and the process of engagement for instruction. Teachers' instructional practices are adapted based on individual knowledge and understanding of concepts, personal beliefs about the significance of content being taught, the diversity of student learning, and how to manage classroom behavior, all while accomplishing the mandates established by the school district and state (Timperley, 2008). Learning opportunities for teachers that elicit necessary changes to practice are relevant and engaging, capitalize on teachers' views, cultivate richer knowledge that can be applied in the learning environment, and encourage self-reflection and analysis (Timperley, 2008). Thus, teachers need to be equipped to provide effective reading instruction because it leads to increased comprehension and textual insight for students (McNamara, 2007).

Literacy necessitates readers have the ability to identify, understand, interpret, create, communicate, and compute using a variety of medium of varying contexts (Sabatini, O'Reilly, & Deane, 2013). Therefore, reading becomes futile if it is not accompanied by comprehension because understanding or meaning making is the primary purpose for engaging in the review of text (Casper, Catton, & Westfall, 1998; Rasinski, 2017; Texas Education Agency, 2002). Comprehension has been defined as the byproduct of one's capacity to read words and make sense of texts when presented by listening (Learning to Read, 2015) or as a process of developing meaning while reading and relating to text (Rand, 2002). There is a fluid journey of understanding as the reader transitions through the passage evaluating it against personal *weltanschauung* (Duke, 2004; Pardo, 2004). Effective readers make meaning of text through text-to-self, text-to-world, or text-to-text relationships. Since reading comprehension is an

individualized process, the definition of comprehension becomes illusive and is contingent upon interpretation of the individual reader (Pardo, 2004).

Personal interaction between the reader and the text produces comprehension (Kucer, 2001; Pardo, 2004). Yet understanding is achieved solely when the reader is captivated by and connected to the passage within a specific time frame. Cognition impacts the manner in which learners engage in the text and the background from which they draw on experiences to apply to the passage. These experiences may be derived from culture, purpose, or motivation (Pardo, 2004).

Learners' transition from simply learning to read to reading as a means of learning generally occurs at the end of third grade (Annie Casey Foundation, 2014). Students with reading deficits who fall significantly behind peers often end up classified as exceptional education students (ESE) receiving special education services although no real disability exists (Coutinho & Oswald, 2000). Youth who demonstrate proficiency in reading by the end of grade three have a greater chance of graduating high school prepared for 21st century success (Annie Casey Foundation, 2014; Greenhill, 2010).

National reading scores revealed that 80% of fourth grade students from low socio-economic communities and 66% of all fourth graders demonstrate a lack of proficiency in reading (Annie Casey Foundation, 2014; National Center for Education Statistics, 2013). A breakdown of the 66% of fourth grade students lacking reading proficiency showed the demographic was composed of 83% Black, 81% Hispanic and Latinos, and 78% American Indian and Alaskan Native youth (Annie Casey Foundation, 2014; National Center for Education Statistics, 2013). Of those struggling with reading, 89% were identified as having a disability (Annie Casey Foundation, 2014; National Center for Education Statistics, 2013). The lack of

reading ability was projected to cause a shortage of individuals in the workforce by 2020 due to a lack of educational qualifications because individuals were unable to secure a high school diploma (Annie Casey Foundation, 2014; Manyika, Lund, Auguste, & Ramaswamy, 2012).

Summer months further exacerbate the reading deficit. Over 80% of impoverished students have little to no access to reading material during summer break causing them to experience decreased reading skills (National Center for Education Statistics, 2013). The repetitive loss of skills can result in approximately three years reading loss by the conclusion of grade five (National Center for Education Statistics, 2013). Over time the lack of skill-mastery and academic struggle lead learners to drop out of school, which limits the potential to contribute meaningfully and significantly to the global workforce (National Center for Education Statistics, 2013).

Although literacy gains have been realized over the past 10 years much work in improving reading deficits is still needed (Annie Casey Foundation, 2014). Comprehension deficits among middle and high school students are estimated to range from 4% to 60% as a result of not mastering essential reading and comprehension skills prior to entering secondary school (National Center for Education Statistics, 2013). Limited foundational literacy skills result in frustration and mental fatigue in learners when reading text, which further impede the comprehension process (Rasinski, 2017; Rayner, Foorman, Perfetti, & Seidenberg, 2001, 2002).

The lack of demonstrated mastery of literacy and comprehension skills on state assessments poses significant concern for educators due to mandates to ensure students are career and college ready (Caccamise & Synder, 2005; Greenhill, 2010). An evaluation of older readers prompts the need to revisit the manner in which literacy and comprehension instruction is approached within the intermediate grades. It is during the transition from primary (K-2) to

intermediate grades (3-5) that students' learning is required to shift from decoding and fluency to more in depth skills such as predicting, questioning, clarifying, monitoring, inferring, and summarizing using informational text (Caccamise & Snyder, 2005; Droop, van Elsäcker, Voeten, & Verhoeven, 2016).

The purpose of this single case study is to understand how professional development for teachers in literacy and reading instruction is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students. The literature review includes research on Bandura's Social Learning Theory, learning theories and professional development, teacher learning, self-efficacy, teacher training, qualitative research, case studies, and professional learning. Databases accessed for the review included ProQuest, JSTOR, Taylor and Francis, along with Sage. Additional search terms included: *reading comprehension, reading theories, text comprehension, cognitive skills, interventions, and reading strategies*. Literature on instructional practices was retrieved searching *teaching reading, pedagogical practices, literacy instruction, instructional practices, strategy instruction, reading methods, reading achievement, and comprehension theories*.

Conceptual Framework

Bandura's Social Learning Theory

This study is based in part on the theoretical understanding derived from Bandura's Social Learning Theory (1977), which posits that individuals learn from social interactions within their environment (McLeod, 2016). Bandura's model encompasses three dimensions of learning: imitation, modeling, and observation (McLeod, 2016; Smith & Berge, 2009). Bandura hypothesized that learning required teaching because individuals cannot learn by themselves

(Smith & Berge, 2009), but learn from the behaviors demonstrated by others, whether positive or negative (McLeod, 2016).

Bandura believed that the behavior rewarded would garner repeat performances because affirmation is consistently being sought by individuals. As learners receive benefits and anticipated consequences of their actions, those activities are continued. Conversely, if a behavior does not garner the anticipated response the action will be discontinued, thus demonstrating the principle of behavioristic reinforcement theory, which is at the heart of the social learning theory (Grusec, 1992; Smith & Berge, 2009).

Another key aspect to Bandura's theory stems from cognition or the processing of information. As information is acquired and assimilated by individuals the manner in which the person responds to and interacts with the knowledge determines the level of self-efficacy developed (Bandura, 1977, McLeod, 2016; Smith & Berge, 2009). This cognitive psychology is vital to feelings of self-efficacy, mastery, and social interactions. The way a person feels about a topic determines the degree of engagement and commitment. Therefore; development should be meaningful and occur in a setting that affords learners with opportunities to interact with peers in a meaningful way followed by experiences that capitalize on learning through application and collaboration (Grusec, 1992; McLeod, 2016; Smith & Berge, 2009).

The co-learning environment not only emphasizes the importance of relational learning but networking, building learning communities, and peer coaching or mentoring (Avalos, 2011). Such environments provide all participants opportunities to meaningfully contribute to knowledge acquisition (Avalos, 2011). Understanding acquired in such environments posit links to improved instructional practices, feelings of self-efficacy, and effective collaboration (Lee, 2008; Puchner & Taylor, 2006). It also increased productivity from working together on shared

and common goals (Baildon & Damico, 2008; Gregory, 2010; Huffman & Kalnin, 2003; Schnellert, Butler, & Higginson, 2008).

Professional Development

Effective teaching occurs as a result of professional development that addresses teacher skills, strategies, and subject matter content and not necessarily on experience (DeMonte, 2013). Professional development is the process of teacher learning and development that promotes the deepening of knowledge and the refinement of skills (Gulamhussein, 2013; Timperley, 2008). The goal of professional development is to provide support for educators as they provide rigorous instruction to diverse learners, including students who have traditionally struggled with literacy (Timperley, 2008). Presenting professional learning in a manner that models the learning environment provides opportunities for participants to engage cognitively in the learning process and demonstrate mastery and application of strategies prior to classroom implementation (Gulamhussein, 2013; Timperley, 2008).

Five principles for effective professional development have been identified: time, learning diversity, modeling, coaching, and targeted content, with ample time allotted for educators to manipulate and interact with learning prior to integrating into the classroom setting (Gulamhussein, 2013). Following initial introduction to learning teachers need coaching to ensure the material introduced within development sessions are implemented within the learning environment (Gulamhussein, 2013; Timperley, 2008). It is not enough for educators to accumulate information but the goal is to effectively integrate knowledge into student learning opportunities.

Time. Inadequate time is devoted to literacy professional development for educators to develop the strategies needed to effectively provide reading instruction that augments student

literacy achievement. Typical timing for professional development has proven ineffective because it takes in excess of 14 hours implementation for any instructional strategy to impact student learning and achievement (DeMonte, 2013; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). The more time spent training the greater the impact on enhancing teaching practices and student learning outcomes (Gulamhussein, 2013). An appropriate time commitment for teacher learning affords participants occasions to practice new approaches and knowledge as well as time for questioning and collaboration (DeMonte, 2013). Although a specific time frame has not been identified, suggested timing for integrating learning spans over the course of a semester and include a minimum of 20 hours of interaction time (Desimone, 2009) to 50 hours of training, usage, and guidance before mastery is achieved enough for integration in the classroom (Gulamhussein, 2013).

Learning diversity. Not all teaching methods and strategies work effectively with every student in the classroom. Therefore, teachers should remain cognizant of and equipped with tools and activities that enhance how they teach within the classroom (DeMonte, 2013; Gulamhussein, 2013; Quint, 2011; Timperley, 2008). Examples need be provided to demonstrate how to effectively integrate strategies and tools into a daily routine (DeMonte, 2013). Adult learning is impacted by experience and the need to problem solving. Thus, professional development should be tailored to meet the needs of teachers and be focused on the goals and objectives or outcomes desired by the school, district, and state (Hunzicker, 2011).

Integrating a variety of instructional techniques and strategies during professional development enhances the experience and makes learning more meaningful and authentic for teachers (Desimone, 2009; Quint, 2011; Tschannen-Moran & McMaster, 2009). Effective trainings are cooperative and interactive by nature providing participants an opportunity to

discuss, reflect, question, plan, and analyze information with peers (Hunzicker, 2011). Simulations, role-plays, book studies, online instruction, discussion, modeling, observations, and professional learning communities are examples of some of the techniques used to provide effective professional learning that leads to augmentation and authenticity in learning (Desimone, 2009; Gulamhussein, 2013; Tschannen-Moran & McMaster, 2009).

Modeling. Integrating and implementing new skills within the learning environment may prove difficult in the absence of having the strategy modeled. Modeling is among the most effective means of presenting and promoting new learning. As lessons are modeled for teachers during professional development, there is increased understanding of topics and materials covered during instructional settings (Gulamhussein, 2013; Tschannen-Moran & McMaster, 2009). Modeling, or vicarious experience, provides an opportunity for teachers to see the process of implementing the skill in daily classroom instruction. Modeling also provides a measuring stick for teachers to self-monitor progress during implementation because presenters have demonstrated what the desired outcome should look like. Through the demonstration of knowledge, skills, and strategies for success, teachers are engaged in a deeper method of learning that communicates what implementation in instructional settings should resemble (Tschannen-Moran & McMaster, 2009).

Coaching. Coaching does not function in isolation but in conjunction with professional development by providing teachers with ongoing support of learning; therefore, coaches should be adept in supporting teachers as they learn new practices (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). As a part of the professional development cycle, coaches interact with educators as implementation and integration of learning occurs through observation and feedback

(Gulamhussein, 2013). Coaches often assist teachers with the planning and execution of lessons ensuring that all instruction aligns with standards (Fixsen et. al, 2005; Gulamhussein, 2013). Oftentimes instructional coaches use videos of teaching sessions as evaluations and feedback is shared with educators for personal reflection (Commitante, 2014; Gulamhussein, 2013). As trainers identify successes and common deficits with strategy implementation, follow-up sessions are conducted to demonstrate, reiterate, and clarify learning thus eliminating and addressing misconceptions (Commitante, 2014; Fixsen et. al, 2005; Gulamhussein, 2013). This cyclical process of learning is instrumental in making instructors feel comfortable and successful in implementing new classroom techniques (DeMonte, 2013; Gulamhussein, 2013; Tschannen-Moran & McMaster, 2009).

Targeted content. Educator practice is based on experience and level of comfort with academic content (Avalos, 2011). Providing professional learning opportunities that enhance a teacher's instructional arsenal is welcomed so long as the information disseminated is found to be useful to participants (Avalos, 2011; Timperley, 2008). Information that is not relevant is acquired but not implemented. It is viewed as just another seminar that is required (Greenhill, 2010; Quint, 2011). However, adult learning that is targeted and specific to a particular goal or outcome is more readily received and implemented because the learning has value and is applicable to meeting an immediate need (Avalos, 2011; Desimone, 2009; Gulamhussein, 2013). Therefore, evidence exists that transitioning away from traditional models of teacher training, presented in the form of lectures, where educators are subjected to checklist types of learning that have no direct correlation on specific targeted outcomes allows participants greater flexibility in mastering content (Avalos, 2011; Gulamhussein, 2013; Timperley, 2008). Complexities and nuances are present in professional learning experiences indicating learning

should occur collaboratively and in correlation with current classroom environments based on individual teacher needs (Avalos, 2011; Greenhill, 2010; Timperley, 2008).

Review of Research Literature and Methodological Literature

Several factors impact teachers' perceptions of professional development and literacy instruction. Environment is one such influence. Organizational climate determines the level of commitment to and investment in teacher growth and development. Collaboration also factors into whether or not professional development is perceived as valuable because it affords teachers the opportunity to engage in critical discourse regarding implementation and receive support throughout the implementation process.

Understanding literacy and the nuances associated with it are also instrumental in providing effective reading and comprehension instruction. Teachers should be aware of how students cognitively engage in the reading process and the implications of prior knowledge, or exposure and memory on how well students are able to connect with texts. An awareness of the varying theories and strategies associated with reading and how they come together to generate lasting learning in students is also of tremendous benefit to educators. Teachers should also be aware of instructional models, strategies, techniques, methodologies, and tools available within the discipline of reading and comprehension to better prepare students for mastery of literacy and comprehension concepts that will cultivate increased achievement.

Environments

Professional development opportunities for teachers may vary due to any number of influences that are beyond the control of facilitators and participants. Among these are school culture, which is the overall atmosphere and dynamics of the school regarding teacher learning (Snow-Gerono, 2005). Schools have varying degrees of commitment towards lifelong learning

based on funding, administrator attitudes and beliefs, resource availability, all of which can enhance or prohibit effective professional development from taking place (Avalos, 2011; Melville & Wallace, 2007). Different locales and demographic regions have divergent opinions of professional development and how they should be conducted based on the type of institution and organizational beliefs (Avalos, 2011; Melville & Wallace, 2007; Muijs & Harris, 2006; Snow-Gerono, 2005; Tschannen-Moran & McMaster, 2009). Thus, as professional development is addressed within learning environments a holistic approach to change should be adapted (Avalos, 2011). The approach should be one that encompasses and purposes to connect professional learning outcomes advantageously to the organization as a whole (Avalos, 2011; Knight, 2002; Melville & Wallace, 2007) based on the goals and objectives of the district and state.

Collaboration

Collaboration for professional learning occurs when educators work or interact with one another for the purpose of enhancing understanding regarding education, teaching, or student achievement (Commitante, 2014; Duncombe & Armour, 2004; Quint, 2011; Tschannen-Moran & McMaster, 2009). Learning can be manifest in a number of ways to include coaching and mentoring, accountability partners, reflection, book studies, observations and learning walks, or sharing and discussing ideas (Commitante, 2014; Duncombe & Armour, 2004; Tschannen-Moran & McMaster, 2009). Collaboration by nature is voluntary and should not be forced to ensure participants are connected and dedicated to goals and outcomes established (Commitante, 2014; Quint, 2011). For collaboration to be effective a cohesive and persuasive direction should be established that allows teachers to contribute based on their individual strengths to the overall results to student achievement as identified by administrators (Provini, 2012).

Collaboration has been deemed a best practice within educational pedagogy, yet many educators choose to continue working independently (Dufour, 2004). To thwart this type of isolative behavior and build amity schools have embraced a variety of collaborative mechanisms to engage all educational stakeholders within the learning community. Some academic settings have implemented grade-level teams, project teams, and operational teams to augment collaborative interactions and opportunities (Dufour, 2004). The ultimate goal of collaboration is to elicit and enact a perpetual mechanism where educators engage in critical and reflective discourse regarding educational pedagogy and student achievement that will enrich instructional practices (Dufour, 2004; Tschannen-Moran & McMaster, 2009).

Professional Learning Community

Professional learning communities are participant-led meetings that navigate educators through six steps: monitor, identify, strategize, integrate, evaluate, and amend, to enhance instruction and student achievement (Provini, 2012). The use of professional learning communities within the educational setting has been shown to produce greater collaboration among peers and altered teaching methods (Gulamhussein, 2013; Vescio, Ross & Adams, 2008). Educators reflect on techniques and strategies as they monitor and evaluate student achievement, while sharing instructional resources that will aid in further pupil growth (DeMonte, 2013; Provini, 2012; Vescio, Ross & Adams, 2008). Professional learning communities have been identified as one of the most beneficial and impactful resources for targeting consistent and lasting staff and student progress (Provini, 2012; Vescio, Ross & Adams, 2008).

Efficacy within professional learning communities is influenced by faith, partnership, and interpersonal relationship skills as a means of accomplishing established student, teacher, and school based initiatives and goals (Provini, 2012; Vescio, Ross & Adams, 2008). Each member

is considered a valued contributor committed to progress, joint accountability, reflection, collaboration and sharing, consistency and fidelity (Provini, 2012; Vescio, Ross & Adams, 2008). Institutions that benefit from professional learning communities embrace the aforementioned attributes and tend to be more effective (Provini, 2012; Vescio, Ross & Adams, 2008). Educators within professional learning communities demonstrate a commitment and willingness to remain focused on curriculum based instruction, implement substantiated learning strategies, cultivate cohesive lesson plans and assessments to be used synchronously and evaluate student artifacts. Consistent monitoring of instructional implementation and engagement in ongoing analytical discourse for learning modifications provide the framework for professional learning communities to elicit the changes required for improved learner outcomes (Provini, 2012; Vescio, Ross & Adams, 2008).

Literacy

Literacy is the ability to gain and understand knowledge and be able to apply the learning (Harvey & Goudvis, 2013). Individual beliefs about reading and personal reading goals established influence overall reading behaviors (Bruning, Schraw, Norby, & Ronning, 2004). The ultimate goal of comprehension is to equip students with the tools and techniques necessary to think strategically about text (Harvey & Goudvis, 2013). The use of active thinking strategies like elaborating, summarizing, and paraphrasing and an inclination to learn additional skills with proficiency are linked to students' self-confidence and enthusiasm towards reading (Schunk, 2003). Proficiency occurs over time and with repetition therefore, the development of reading skills is impacted by the length of time allotted for students to learn and implement techniques (McCrudden, Perkins, & Putney, 2005; Siegler, 2000).

Application of strategies requires significant thought and critical thinking prior to engagement. Preemptive instruction targeting comprehension is necessary (Caccamise & Snyder, 2005) and requires providing instruction for managing the cognitive process. This includes modeling, reciprocal teaching, and scaffolding for students to appropriately and accurately engage and implement methods for improving comprehension (McCrudden, Perkins, & Putney, 2005). Explicit, or direct, instruction and usage opportunities enhance students' attitudes and behaviors positively towards reading comprehension (McCrudden, Perkins, & Putney, 2005). As educators encourage students to become more familiar with new texts greater engagement is achieved (Pardo, 2004).

Prior Knowledge

The manner in which students make meaning while reading is related to their personal preferences and learning styles (Tschannen-Moran & McMaster, 2009), (Butcher & Kintsch, 2003; Fletcher, 1994; Narvaez, 2002; Pardo, 2004). Accessing prior knowledge is foundational in achieving comprehension or understanding (Pardo, 2004; Harvey & Goudvis, 2013). The more relatable exposure and experience a reader has the greater the degree of connectivity and interaction with the passage being read (Butcher & Kintsch, 2003; Pardo, 2004; Schallert & Martin, 2003). When readers generate connections between prior knowledge and new knowledge deeper learning occurs. Schema is the cognitive process or mechanism by which individuals make sense of or unify the context of the world (Pardo, 2004). The schema process calls upon memory as a framework for establishing and processing new knowledge (Klemm, 2012).

Memory and Reading

Long-term memory. Readers rely on memory banks to access prior knowledge. Memory repositories contain information ranging from minutes to lifetimes (McLeod, 2010). Due to the

vastness of individual experiences the magnitude and capability of long term memory is immense to house all the data that is acquired over the span of one's life (McLeod, 2010; Pressley, 2003). Long term memory typically catalogues information semantically, by meaning, or visually, using pictures; however, it can be retained acoustically, with sound. The process of retrieving data from long term memory is based on three different processes; procedural, semantics, and episodic.

Procedural memories processes engage recall and involve the use of steps or instructions for completing tasks, or skills. They are the step-by-step instructions for processes like the steps to identify the main ideas of a passage. Semantic memories involve the use of facts and associated meanings like the definition of a main idea. Episodic memories record recollections of events or specific experiences that occur like the first trip to Disney (McLeod, 2010). Each of these modes of preservation is accessed when readers engage text in search of what they already know about the topic. The knowledge recalled is then transferred to short-term memory for use (Pardo, 2004).

Short-term memory. Short-term memory is limited by nature to brief time spans and is therefore not designed to hold massive amounts of information like long term memory (McLeod, 2009). Once relative or needed files are transferred from long term to short-term memory it must be used immediately or it will transition back to long term memory (Pardo, 2004; Schallert & Martin, 2003). Short-term memory can only hold seven, give or take two, thoughts at a time before the thought is relegated as useless (McLeod, 2009). For retrieved memories to be retained in short-term memory they must remain active. The more students engage texts using multiple comprehension strategies repetitively, the more strengthened their skills become because the

information remains stored in their short-term memory for easy recall and access for application (Harvey & Goudvis, 2013; McLeod, 2009; Pardo, 2004).

Theories in Reading

Educational professionals need to have a keen awareness of and insight into reading theories and relevant strategies to have a significant and lasting impact on student learning in literacy (Harvey & Goudvis, 2013). The three essential theories educators need to focus on are Schema Theory, Mental Models, and Proposition Theory. Aligned with these theories are four groups of strategies, Preparational, Organizational, Elaboration, and Monitoring, designed to specifically enhance reading comprehension (Casper, Catton, & Westfall, 1998).

Theories are the general thinking about or pedagogy of a discipline that provide a framework by which strategies are implemented. Strategies are the techniques, mechanisms, routines, and tools used to provide instruction and foster understanding at a classroom level (Casper, Catton, & Westfall, 1998). Theories are the “why we do,” and strategies are the “what we do” (Casper, Catton, & Westfall, 1998; Gunning, 1996).

Schema theory. Schema is the relationship between what the reader already knows and the text being read, or background knowledge (Casper, Catton, & Westfall, 1998; Gunning, 1996). Schema can be vast or minuscule based on the learners’ interpretation and experience. Meaning is thus derived as connections are made with prior knowledge based on the level of schema a student has regarding a particular subject. Therefore, the more experiences an individual has to draw from the greater the level of comprehension while reading (Casper, Catton, & Westfall, 1998). Long term memory storage is used to archive data (Pardo, 2004).

Mental model. Mental model is the use of visualization while reading. As readers engage the text, meaning is made from learners following the plot or story line and creating a sequence

of connecting frames that support comprehension of textual occurrences (Casper, Catton, & Westfall, 1998; Gunning, 1996). However, educators need to be familiar with the limitations of the mental model theory (Casper, Catton, & Westfall, 1998). If while reading, for example, students create a mental model that is inconsistent with the story line, the mental model will hinder comprehension. Thus, teachers should be prepared to have pupils share their thinking as the reading lesson progresses to ensure accurate acquisition of understanding is occurring (Casper, Catton, & Westfall, 1998).

It takes a partnership of background knowledge and exposure to develop the cognitive depictions of text, as described in the Kintsch Theory (Caccamise & Snyder, 2005). Kintsch Theory posits that comprehension embodies three facets: verbatim, semantic, and situational representations (Kintsch, 2004; Kintsch & Mangalath, 2011). Verbatim is the recollection of literature as it is presented with no textual interaction that makes connections with the reader (Kintsch & Mangalath, 2011). Semantic representation relates to the deeper meaning of the text that is derived from analysis of textual structures and themes (Kintsch, 2004). Lastly, situational comprehension focuses on situations within the passage that aid the reader in establishing meaning (Kintsch, 2004).

In essence, Kintsch's Theory involves interpreting and making meaning from passages based on the reader's ability to interact personally with the writing. Theoretically, each component works in conjunction with its other two counterparts to develop a holistic understanding of the text. Therefore, improving comprehension involves an integrative approach to cognition that requires the usage of numerous reading strategies (Kintsch, 2004).

Proposition theory. Propositional theory of comprehension involves the identification of the main idea and supporting or key details to assist in establishing meaning (Caccamise &

Snyder, 2005). Proposition is classified as the most rudimentary component of meaning by Kintsch (Caccamise & Snyder, 2005). Propositions within text are based on the relationships of and between the words written (Caccamise & Snyder, 2005). Additionally, propositions can be represented in a variety of ways within a passage: perceptual, action, linguistic, or symbolic (Caccamise & Snyder, 2005). Students who have the ability to identify the most important factors of the text first followed by identification of textual evidence in support of their hypothesis gain greater comprehension of the text (Casper, Catton, & Westfall, 1998). Formation of a macrostructure, or how a story is made up, is paramount to understanding the context of the passage (Casper, Catton, & Westfall, 1998).

Instruction in Reading

Students should be exposed to and begin learning comprehension strategies as soon as they begin to read (Casper, Catton, & Westfall, 1998). This instruction is provided by the classroom teacher who should demonstrate mastery and capability in teaching decoding skills, skills to build fluency, identify, initialize and implement background knowledge, provide vocabulary instruction, foster an environment that encourages reading, and provide opportunities for learners to personally interact with texts (Harvey & Goudvis, 2013; Pardo, 2004; PourhoseinGilakjani, 2016). There are a variety of mechanisms and techniques by which teachers can effectively provide instruction so that students are able to achieve mastery to the degree of application with increased rigor (Caccamise & Snyder, 2005; Harvey & Goudvis, 2013; Pardo, 2004).

Decoding

Decoding is essential to comprehension because it allows students to read words. Phonics, or letter sounds, and phonemic awareness, knowing when to use specific sounds, are

prerequisites to decoding in reading (Block, Parris, Reed, Whiteley, & Cleveland, 2009; Pardo, 2004). Although some degree of decoding is taught in each grade, basic letter sounds and blends are typically taught in depth in primary grades kindergarten through second, while intermediate decoding instruction focuses on spelling, word meanings, and academic vocabulary building activities (Block et al, 2009; Pardo, 2004). The premise is that if intermediate students have developed decoding skills they will spend less time and energy retrieving sounds to pronounce words and more time using short-term memory to make meaningful connections for comprehension (Pardo, 2004).

Fluency

Fluency is the rate at which students recognize and read words, or automaticity of reading. Students with greater levels of fluency have more memory to focus on comprehension because thinking is not bogged down with phonemics and decoding (Pardo, 2004; Rasinski, 2003). Fluency instruction can take many forms, for example reader's theatres or teacher read-alouds (Pardo, 2004). As students become more verse in fluent reading they are able to process what is being read leading to increased comprehension. As teachers model fluency with read-alouds, students gain greater understanding of what fluency is and why it is important to increasing comprehension (Pardo, 2004).

Accessing and Engaging Prior Knowledge

Helping students make connections between prior knowledge and new knowledge is a primary function of educators (Harvey & Goudvis, 2013). As learners formulate associations between what they know and what is being taught greater meaning and comprehension emerges (Keene & Zimmermann, 1997; Miller, 2002; Pardo, 2004; PourhoseinGilakjani, 2016). The challenge to accessing and engaging students' familiarity with a topic is the lack of previous

exposure to a variety of subjects and experiences. To overcome such struggles teachers can provide a diverse and comprehensive classroom library containing a variety of texts including informational and nonfiction texts (Harvey & Goudvis, 2013). The more time and exposure students have with such writings the more data they have to extract from when new information is shared (Pardo, 2004; PourhoseinGilakjani , 2016).

Another tool available and used by educators is graphic organizers. Graphic organizers, visual organizers, and thinking maps all aid in helping students visualize during reading. Organizers can be used to connect prior knowledge to new information as with the Know, Want to Know, and Learned (KWL) Chart to show relationships between different texts or to establish associations between reading material and what is going on in the world (Keene & Zimmermann, 1997; Pardo, 2004). Graphic organizers, in their various forms, can be used as a means of establishing or developing understanding visually, which could transition to increased confidence (Pardo, 2004).

Vocabulary

Excessive unknown words hinder comprehension because learners experience burnout during the process of trying to determine meanings (Pardo, 2004; PourhoseinGilakjani, 2016). Thus, front loading vocabulary, possibly through the use of graphic organizers, is a strategy used by educators to introduce key terms that students might find difficult or not be aware of. Not all unknown words are introduced as vocabulary, only those that have significance to the meaning of the text and aid in learner comprehension (Pardo, 2004). An essential role of the teacher is to connect new terms with existing knowledge and concepts (PourhoseinGilakjani, 2016). Vocabulary words should be customized to the individuals within the learning environment and based on the background knowledge, class dynamics, and reading levels (Blachowicz & Fisher,

2004; Pardo, 2004). Beyond providing vocabulary instruction, educators should consider providing opportunities for pupils to utilize the terms introduced in written and verbal form. This allows the terms to become useful and active as students engage in more dynamic texts and writings (Pardo, 2004).

Selecting Text

Balancing the needs of the reader with the text is a significant function of educators when selecting passages (Harvey & Goudvis, 2013). Meaning begins with understanding the structure and word order within the text indicating a need for teachers to pay close attention to the organization of writings (Butcher & Kintsch, 2003). This includes genre, language, author's purpose, and specific word choices (Pardo, 2004). Rigor and quality are also determined by the structure of the text. Considerations should be made regarding the relatability and readability of texts, as well as, length and vocabulary because they determine how well meaning of the text is made (Tracey & Morrow, 2002).

Questioning

Questioning is identified as the foundation of learning for centuries because it is used to access prior knowledge, improve comprehension, and enhance critical thinking skills (Behizadeh & Fink, 2015; Heritage, 2013; Hussin, 2006; Tofade, Elsner, & Haines, 2013). Questions are used by teachers to assess the how students are processing and understanding information or learning and to measure the degree of students' skill mastery (Heritage, 2013; Marzano, 2013; Tofade et al, 2013). Conversely, ineffective questioning can lead to confusion and misconceptions for learners (Giouroukakis & Cohan, 2014; Heritage, 2013; Tofade et al, 2013). Therefore, creating an environment where students feel safe posing and responding to questions is necessary to improving student achievement in literacy (Hussin, 2006; Marzano, 2013; Tofade

et al, 2013). When students learn to engage in effective questioning they not only demonstrate greater comprehension but also the ability to think and reason critically (Hussin, 2006; Marzano, 2013; Tofade et al, 2013). Student questioning mastery is contingent upon teacher questioning mastery. Teachers who model effective questioning develop students who question effectively because they are exposed to a level of accountability in comprehension that is evidenced in the higher orders of traditional questioning hierarchies (Giouroukakis & Cohan, 2014; Hussin, 2006; Tofade et al, 2013).

Questioning is classified into six dimensions ranging from low cognition to high cognition (Giouroukakis & Cohan, 2014; Tofade et al, 2013). When students respond to questions at the knowledge level where they recall, restate, list, or name in response to an inquiry they are demonstrating a low level of comprehension (Giouroukakis & Cohan, 2014; Marzano, 2013; Tofade et al, 2013). Similarly comprehension and evaluation require low level engagement because students are summarizing describing, visualizing, illustrating, and classifying to answer questions (Giouroukakis & Cohan, 2014; Marzano, 2013; Tofade et al, 2013). Higher-level questioning involves analysis, evaluation, and synthesis. Students are required to engage more cognitively by organizing, deducing, distinguishing, justifying, defending, criticizing, hypothesizing, and supporting responses to questions asked (Giouroukakis & Cohan, 2014; Marzano, 2013; Tofade et al, 2013).

Teachers' level of comfort and self-efficacy and knowledge of students is said to dictate the type of questioning used within the learning environment (Hussin, 2006; Peterson & Taylor, 2012) not years of experience (Peterson & Taylor, 2012; Tofade et al, 2013). Classroom instruction and students' achievement are influenced by the teacher's knowledge of questioning and perceptions regarding effective questioning (Behizadeh & Fink, 2015; Hussin, 2006;

Peterson & Taylor, 2012). Teachers with effective questioning skills have the ability to maintain student focus, stimulate inquisitiveness, kindle imagination, and foster a love of learning (Behizadeh & Fink, 2015; Hussin, 2006; Peterson & Taylor, 2012). Most teachers struggle to use the full range of questioning levels, indicating the need for further training to improve questioning practices (Hussin, 2006, Marzano, 2013; Peterson & Taylor, 2012; Tofade et al, 2013).

Student Motivation

Teachers are the primary cheerleaders for literacy acquisition (Pardo, 2004). As educators cultivate engaging and thriving environments where students have access to diverse forms of prose and opportunities to demonstrate understanding, learners become more active in the reading process, which increases comprehension (Harvey & Goudvis, 2013; Pardo, 2004; Pressley & Hilden, 2002). One way to motivate students is to ensure learners understand when and how reading and writing will be used outside of the academic environment. This can be achieved by having students complete job applications, problem solve, or engage in community activities (Pardo, 2004; PourhoseinGilakjani, 2016). Another avenue to improve students' reading motivation is to provide opportunities for pupils to participate in reading that is considered non-threatening, non-academic, and pleasurable. Book clubs and book studies provide learners with an outlet to read and interact with texts while engaging in meaningful questioning and dialogue with peers that help deepen understanding, which leads to greater comprehension (Harvey & Goudvis, 2013; McCrudden, Perkins, & Putney, 2005; Pardo, 2004).

Strategies Used in Reading Instruction

Preparational Strategy. Preparational strategies prepare learners for what they are about to read and occurs before the text is opened. This strategy requires the use of background knowledge as a precursor to reading, which is directly correlated to schema theory (Casper, Catton, & Westfall, 1998). Students that have some type of previous interaction or experience with a topic achieve greater comprehension because they have a foundation on which to increase understanding. Preparational skills include textual previews, front loading vocabulary, graphic organizers and thinking maps, discussions, illustrations, or other mechanisms that prompt students to recall what they already know to make predictions about what will happen in the text (Casper, Catton, & Westfall, 1998).

Organizational Strategy. Organizational strategies aid students in identifying the hierarchy within a text throughout the reading process (Casper, Catton, & Westfall, 1998). As part of the Mental Model theory, this strategy is used to help students identify main idea, topic, theme, and important details. Within the Propositional Theory, organizational strategy implements classifying, sequencing, summarizing, and other literary devices necessary for comprehension. Organizational strategies should be taught repetitiously with greater difficulty or rigor being applied with each level of mastery (Casper, Catton, & Westfall, 1998). Approaches are also beneficial to learners because this is the form most commonly used on standardized assessments (Casper, Catton, & Westfall, 1998).

Elaboration Strategy. Elaboration is one of the more complex strategies of comprehension because it requires students to intertwine preparational and organizational strategies when reading a passage. Elaboration goes one step further than summarizing by provoking questions that cause the reader to make inferences and assumptions. It further requires

that connections be made between the text and the reader, the world, or other texts to enhance understanding and make deeper meaning (Casper, Catton, & Westfall, 1998).

Elaboration also provides a platform for students to begin a more in depth analysis of the text, using for example a KWL Chart, which asks learners to disclose what they already Know about the topic, what they Want to Know about the topic, and conclude with what they Learned from the study of the topic. This method affords students to take ownership of their learning thus causing them to engage more meaningfully (Casper, Catton, & Westfall, 1998). Elaboration calls upon all three theories because its characteristics can be engaged at any juncture during the reading process.

Monitoring Strategy. Monitoring is at the pinnacle of comprehension strategies because it places the responsibility of understanding in the hands of the learner and is thus by nature related to the propositional theory, which requires the reader to identify the relationships between important information in the text, such as main idea and key details (Casper, Catton, & Westfall, 1998). During the monitoring process students evaluate their own level of comprehension and employ the appropriate strategies to remediate independently (Casper, Catton, & Westfall, 1998). This ability to self-monitor and regulate comprehension of a text demonstrates greater literacy acumen (Caccamise & Snyder, 2005; Casper, Catton, & Westfall, 1998).

Reading theories and approaches based on literacy pedagogy and strategies should be implemented synchronously during reading instruction for greatest efficacy because each is dependent on the other. For example, schema is necessary to form a mental model, while proposition theory requires both background knowledge and visualization to identify the main idea and key details. Similarly, the preparational strategy is the precursor to the organizational strategy that allows for elaboration and ultimately monitoring understanding (Casper, Catton, &

Westfall, 1998). As learners transition from the most basic form of comprehension theory, schema, to the most intricate, propositional, the level of understanding and mastery of the topic increases, resulting in improved comprehension and scores (Casper, Catton, & Westfall, 1998).

Students equipped with the necessary tools and who have practiced utilizing such methods will likely implement them while reading (Casper, Catton, & Westfall, 1998). Therefore, educators should be adept and skillful in the instruction of reading strategies (Casper, Catton, & Westfall, 1998). Teachers should understand the usefulness, appropriateness, and necessity of teaching these skills at the onset of students' academic lives and continuing to increase the rigor of strategy usage throughout their student tenure (Casper, Catton, & Westfall, 1998). Thus, understanding the significance of effective literacy instruction begins with providing professional development that introduces a topic followed by specific guidance on how to implement the learning within the instructional environment.

Methodological Literature

Educational research is conducted using qualitative, quantitative, or mixed methodology. Quantitative studies measure numerically, while qualitative studies utilize non-numerical assessment. Quantitative methodology is often erroneously viewed as more valid because of its preciseness and specificity; however the coding of qualitative data can be just as objective. Since qualitative research measures data that are more abstract and less concrete than the numbers associated with quantitative findings researchers should understand and clearly discuss the scales of measurement used. The goal of qualitative research is to provide a comprehensive view of a case that identifies the specific qualities present along with detailed descriptors and information regarding environment, objects, and dynamics within the setting that support valid results for the study objectives identified in response to research questions (Adams & Lawrence, 2015).

This section reviewed some of the methods used by the researchers conducting studies. Current research was predominantly qualitative in nature thus indicating the need for more quantitative research in this area.

An example of a qualitative study is research by Abernathy-Dyer, Ortlieb, & Cheek (2013). The researchers used a case study approach to explore teacher efficacy and the impact efficacy had on instructional practice. Observations, interviews, and questionnaires were used to collect data from study participants. Of the four teachers interviewed, each felt a sense of success in achieving student literacy goals established and a change in pedagogical approach was present as a result of working individually with the reading coach and consultant or being forced into change by the mandates of a new reading policy. Additionally, Heritage and Heritage (2013) used qualitative methodology to analyze social interaction in making meaning and understanding within fifth grade classrooms. They conducted and transcribed videotaped interviews to capture participant experiences as part of the data collection process. Furthermore, Ross and Bruce (2007) conducted randomized field trials to examine the effects of professional development on teacher efficacy. Bandura's Social Learning Theory was used for the conceptual framework and Woolfolk-Hoy's Short Teachers' Sense of Efficacy Scale was used to measure teachers' perceptions of self-efficacy. From the Canadian school district used for the study, two groups were formed with one group receiving professional development training as a treatment and the other group receiving delayed training at the conclusion of the study.

Qualitative research seeks to identify themes within the phenomenon or natural setting. Qualitative research also strives to bring awareness to social or human issues by analyzing and interpreting the problem, developing possible resolutions, and calling society to action. This type of qualitative research also embodies a specific flow from philosophical assumptions to

individual worldviews and beliefs to procedures for conducting a study (Creswell, 2007, p.37). The researcher is the considered the primary means of collecting data. For this reason, researchers should develop or identify a tool that can be or has already been validated for use as the standard means of investigation. Qualitative research also requires that investigators determine which themes they will be looking for, while ensuring the individual conducting the research remains objective and does not circumvent the data gathering process by imposing his or her personal feelings and interpretations on those of the interviewee (Creswell, 2007, pp. 38-39).

Literature supports the use of numerous qualitative approaches; narrative, case study, phenomenology, ethnography, and grounded theory. Although similar in qualitative nature, each approach lends itself to nuances specific to its style. Narratives typically focus on one to two individuals, phenomenology includes three to 10 participants, grounded theory evaluates 20 to 30 subjects, ethnography addresses on particular people group or culture, and case studies investigate four to five cases within a system (Creswell, 2013, p. 239). Observations, interviews, documents such as, meeting minutes, journals, emails, reports, and letters, and audio and visual materials are all instruments used in the qualitative data collection process (Creswell, 2013, p. 240).

Most prevalent within the literature were case studies that evaluated attitudes, perceptions, and beliefs regarding professional development and instructional practices (Hilden & Pressley, 2007; Hollenbeck & Kalchman, 2013; Quick, Holtzman, & Chaney, 2009; Richter, Kunter, Klusmann, Ludtke, & Baumert, 2011; Ross & Bruce, 2007). This is followed by mixed method approaches and experimental and quasi-experimental design (Cantrell & Hughes, 2008; Ogeyik, 2013), Seidel, Sturmer, Blomberg, Kobarg, & Schwindt, 2011; Tschannen-Moran &

McMaster, 2009) to evaluating teacher professional development. Reviews of the research are consistent with these findings and identify these as prominent because of the dynamics of the educational discipline and the need for such methodologies in establishing validity while reducing biases and limitations (Avalos, 2011; Vescio, Ross, & Adams, 2008).

Review of Methodological Issues

Essential to practice are an educator's perceptions, philosophy, and cognition. Numerous methods have been developed and used to study teachers' attitudes and feelings regarding their roles and effectiveness (Pearrow & Sanchez, 2008). Therefore, using a constructionism epistemology the research is designed to understand the educator's role and attitude regarding preparedness in enhancing literacy and reading comprehension proficiency in intermediate students.

Constructionist epistemology purports that meaning evolves from worldly interface and that meaning is subjective to individuals based on interpretation of experiences or occurrences (Alford, 2012; Creswell, 2013). The emersion of the researcher within the context of the research surrounding aids in objectifying the data being gathered because the researcher is within close proximity to those being evaluated (Alford, 2012; Creswell, 2013). Constructionism is the theory most often relied upon when conducting qualitative research. The qualitative approach requires awareness of the suppositions, opinions and principles that inform research queries (Alford, 2012; Baxter & Jack, 2008; Creswell, 2013).

Informing corrective action for teacher efficacy and perception regarding preparedness in providing effective literacy and reading comprehension is the objective of the qualitative study. As attitudes and behaviors are evaluated and uncovered the research serves to prompt changes in how teacher preparation is conducted and maintained (Creswell, 2013). A qualitative case study

methodology will be used as a means of program assessment, as well as intervention identification since it responds to questions of how teachers provide reading and literacy instruction and why the technique implemented was selected for use (Baxter & Jack, 2008). Using a variety of data sources, the researcher seeks to enhance and inform improved instructional phenomenon by evaluating the current paradigms and relationships in use (Baxter & Jack, 2008).

The use of multiple evaluative methods of data collection and analysis including interviews, and observations, artifacts, questionnaires, surveys, documents, and records allow for comprehensive research and reduce bias from one type of analysis because credibility is increased (Baxter & Jack, 2008). It gives a more inclusive view of instructional occurrences. Due to the real-life context and genuine interest of the topic a descriptive and intrinsic case study approach will be taken (Baxter & Jack, 2008).

Using a single case study approach allows researchers to extrapolate phenomenon that identify and analyze the relationship between phenomena such as professional development and instruction for students. A vast population is not required to establish patterns that produce statistically significant results. This occurs as long as the inferences and implications remain consistent and saturation levels are reached in a manner conducive to exist within the population under investigation (Creswell, 2013).

Teacher Sense of Efficacy Scale (Woolfolk Hoy, 2001) was used as the Pre-/Post-Professional Development assessment (Tschannen-Moran & Woolfolk Hoy, 2001). Individual participant needs assessment surveys were utilized to identify the most impactful professional development. Upon conclusion of the professional development session participants evaluated the professional development via a Likert scale survey distributed using Qualtrics. Teacher

interviews were also conducted and recorded during implementation for thematic codification. *i-Ready* literacy assessments were used to measure student achievement changes, and a questionnaire was used to collect participant demographic information. To further ensure credibility and validity data triangulation and member checking was used (Baxter & Jack, 2008; Creswell, 2013).

Synthesis of Research Findings

Effective, targeted professional development opportunities for teachers are related to gains in student achievement (Commitante, 2014; Quint, 2011). Teacher learning, whether scripted or casual, should remain ongoing for greatest impact on instruction and student achievement (Commitante, 2014). Consistent training in pertinent topics relevant to the needs of participants garners interest in implementation because teachers see the relevance of the information and it is meeting an instructional need. Otherwise, the information disseminated is viewed as extraneous and will be disregarded by teachers (Avalos, 2011; Commitante, 2014; Gulamhussein, 2013; Quint, 2011; Timperley, 2008). Not all teachers require the same type or degree of learning; therefore, providing training that is significant and audience specific increases the likelihood of participant buy in and implementation (Gulamhussein, 2013). There remains ongoing need for continuous study and evaluation of professional development in education (Avalos, 2011; Tschannen-Moran & McMaster, 2009).

Studies on the topic of reading incorporated both quantitative and qualitative designs to examine the role teacher attitudes, perceptions, beliefs, philosophy, and practices play in the effects of perpetual learning of educators on student achievement (Avalos, 2011; Clarke & Hollingsworth, 2002; Korthagen, 2004, 2010; Penlington, 2008; Snow-Gerono, 2008). An evaluation of the literature reveals three key factors—professional development format,

opportunities for reflection, and teaching experience—as staples in providing effective professional development (Avalos, 2011; Richter, Kunter, Klusmann, Ludtke, & Baumert, 2011; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009).

The type of professional development provided, for example, using technology, lecture, collaboration, hands on demonstrations, book study, or video and on-line chats determine the level of participant engagement and the degree to which participants feel comfortable with implementing the information disseminated (Borko, Jacobs, Eiteljorg, Pittman, 2008; De la Torre Cruz & Casanova Arias, 2007; Hou, Sung, & Chang, 2009; Koc, Peker, & Osmanoglu, 2009; Kucan, Palincsar, Khasnabis, & Chang, 2009; Prestridge, 2010). Presenters are able to connect with all learning modalities within the learning environment when multiple mediums are used in professional training sessions (Avalos, 2011; Tschannen-Moran & McMaster, 2009).

Current reflective practices use reflections and narratives that target self-efficacy, needs assessment, challenges, goals, and shared experiences that have occurred within the learning environment (Breault, 2010; Day & Leitch, 2001; Shank, 2006). Reflective practices are an opportunity for teachers to identify mastery experiences and areas of deficiency, while engaging in discourse with colleagues that bolster understanding of skills and strategies that could improve practice (Alavos, 2011; Tschannen-Moran & McMaster, 2009). During professional learning community discussions, reflections and narratives regarding student achievement and instructional practices offer a basis for ongoing dialogue of how to best meet the needs of students, specifically those struggling learners, to ensure that progress is being made towards established goals (Alavos, 2011; Tschannen-Moran & McMaster, 2009; Vescio, Ross & Adams, 2008).

Teaching experience also impact how professional development is conducted. Beginning teachers tend to embrace professional development more than veteran educators because teachers who have been in the profession for any number of years have mastery experiences that frame their sense of efficacy, while new teachers do not have those experiences (Alavos, 2011; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009). Additionally, greater support is provided for newly appointed instructional staff to foster skill and strategy retention (Devos, 2010; Harrison, Dymoke & Pell, 2006; Sundli, 2007; Hobson, Ashby, Malderez, & Tomlinson, 2009; Killeavy & Moloney, 2010; Mitchell & Logue, 2009; Oberski & McNally, 2007). To balance learning experiences for all professional development participants it is vital that a collaborative approach be taken so more seasoned teachers feel valued and engaged while providing enough information and support to inexperienced teachers (Alavos, 2011; Richter, Kunter, Klusmann, Ludtke & Baumert, 2011; Tschannen-Moran & McMaster, 2009).

Critique of Previous Research

Literacy instruction is complex requiring educators demonstrate proficiency and confidence as relevant instruction is delivered. The intricacies involved in teaching reading leave educators feeling inadequate and ill-prepared to address deficits present with struggling readers (Cantrell & Hughes, 2008; Greenleaf, Schoenbach, Cziko, & Mueller, 2001; Vescio, Ross, & Adams, 2008). Traditional methods of professional development focus on outside entities providing prescriptive information and knowledge for teachers to use to become better teachers. However, transitions to methodologies that integrate the knowledge of more experienced educators familiar with the learning community present greater opportunities for shared knowledge transfer. By providing a non-prescriptive approach to professional development the one-size-fits-all ideal is abandoned and replaced with one of collaboration and shared goal

setting and decision making based on professional prowess and student needs (Cochran-Smith & Lytle, 1999; Tschannen-Moran & McMaster, 2009; Vescio, Ross, & Adams, 2008). As goals are established through critical discourse and teamwork, learning is enhanced because learning derived from professional development sessions is implemented, coached, monitored, and evaluated (Quick, Holtzman, & Chaney, 2009; Tschannen-Moran & McMaster, 2009).

Teacher learning is an area of study because of the drive to improve student achievement. Therefore, ongoing research is required to understand the dynamics of professional development and effective implementation to ensure learning gains occur (Avalos, 2011; Ross & Bruce, 2007). Specific to professional development for teachers are the constructs of efficacy, engagement, and changes in instructional practice (Cantrell & Hughes, 2008; Quick, Holtzman, & Chaney, 2009; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009).

Teachers' perceptions impact self-efficacy and influence instruction. Instructors who struggle to understand their value have lower efficacy which diminishes instructional impact and student achievement (Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009).

Investigations of professional development suggest that efficacy is improved following learning sessions but further enhanced through ongoing mentoring and coaching. Increased support and accountability encourage greater fidelity to implementation which translates to increased student achievement as a result of changes in attitude, behavior, and instructional practice (Cantrell & Hughes, 2008; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009).

Engagement is also identified as a key component of professional development. In order to increase teacher engagement, learning for teachers has transitioned from the traditional model of lecture to more collaborative and interactive sessions (Avalos, 2011; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009). To enhance the learning experience, professional

development has integrated collaboration, technology, modeling, assessment, and reflection. This type of educational environment promotes efficacy because participants establish a supportive network or community as identified by Bandura's theory of socially cognitive learning (Grusec, 1992; McLeod, 2016; Ross & Bruce, 2007; Smith & Berge, 2009; Tschannen-Moran & McMaster, 2009).

Summary

Covered in this chapter was a review of literature regarding professional development, self-efficacy, and literacy and reading. Found through the research were strategies to enhance student achievement in reading, methodologies for research, a critique of the literature and methodological issues were addressed. Development is woven into daily life and is a byproduct of relational interactions with others, whether they are friends, family, coworkers, mentors, administrators, pupils, or parents. Educators endeavored to improve teaching and learning for both students and themselves based on those external relationships (Vescio, Ross, & Adams, 2008). Review of the literature clearly posited the connection between the effective presentation and implementation of professional development information and increases in student achievement. Current research was predominantly qualitative in nature thus indicating the need for more quantitative research in this area.

Covered in chapter three are the specifics of the current research study regarding the effects of professional development on teacher efficacy and increased student achievement in literacy. The chapter presents an overview of the qualitative case study methodology of the research and explains why the approach was selected. The purpose and focus of the study along with participants and expected outcomes are defined along with the tools and instruments to be

used in extracting and evaluating data and information retrieved from the target population.

Limitations and biases are discussed, in addition to validity and ethical implications.

Chapter 3: Methodology

A need exists for research in fundamental reading pedagogy regarding comprehension. Studies should address how theories practically impact classroom instruction in an effort to prevent further declines in reading comprehension (Caccamise & Snyder, 2005). Adequate comprehension instruction provided by the classroom teacher demonstrates the subject knowledge and experiences the educator has with content, instruction and interpreting the needs of individual learners (Harvey & Goudvis, 2013). Evaluating instructional practices is vital (Pardo, 2004).

Improving instructional practice involves the process of uncovering educators' instructional attitudes and beliefs regarding literacy that inform how literacy instruction is administered. Such investigations aid schools in recognizing both effective and ineffective procedures, techniques, and strategies that are less impactful to student achievement (Ford, 2008). This process of realization should then foster an attitude of change in teacher perception and classroom instruction (Ford, 2008). Professional development for educators is most effective when designed to cultivate changes in instructional practice (Ford, 2008; Avalos, 2011; Timperley, 2008).

One area where professional development is needed to drive changes in teaching practices involves teacher training on literacy instruction for struggling students. Learner performance and ability tend to be assessed without consideration of data that is individual student versus class driven. Fewer than 30% of teachers use student strengths as the focus of targeted instruction (Ford, 2008). Utilizing student data to inform instruction would expose trends essential in remediating and enriching learning for all pupils within a learning environment (Ford, 2008).

Hence, the goal of this chapter is to provide specific details of the study, its site and population, research design, data collection tools and processes, evaluation methods, limitations and the validity of the study. Additionally, discussed are the expected findings, ethical issues, and conflicts arising within the study process and the researcher's position on the study itself.

Research Questions

All research, despite the discipline, originates from a question the research wants to reconcile. Queries generally initiate in a broad manner that is too expansive for individual study, yet dwindle down to a more narrow questions that can be researched more realistically (Trochim, 2006). The essential questions to be answered by this study are:

Research Question 1

What was the perception of teachers concerning the training received and the usefulness for teaching literacy? What aspects of the training did the teachers find most beneficial?

Research Question 2

What is the perception of teachers' level of self-efficacy after the professional development training?

Research Question 3

What is the teachers' perception of changes in instructional practices after the professional development training?

Research Question 4

What trends were noted in the student achievement scores of the *i-Ready* test after teacher participation in professional development?

This study is further supported by literature indicating that evaluating changes to teacher efficacy, attitude, and practice prior to and following professional development provides greater

understanding of the impact of professional development on instructional practices. Additionally, previous writings posit whether or not professional development based on current literacy research impact instructional practices that produce increased student achievement (Heydon, Hibbert, & Iannacci, 2005).

Purpose and Design of the Study

Purpose of Study

The purpose of this single case study is to understand how professional development for teachers in literacy and reading instruction, is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students.

Research Design

The ultimate goal of qualitative research is to deliver objective, and valid results for the study objectives identified in response to research questions (Adams & Lawrence, 2015). Therefore, a single case study was used to conduct the research. Essential to practice are an educator's perceptions, philosophy, and cognition. Numerous methods have been developed and used to study teachers' attitudes and feelings regarding their roles and effectiveness (Pearrow & Sanchez, 2008).

This research study was designed as a single case study to understand the educator's role and attitude regarding preparedness in enhancing literacy and reading comprehension proficiency in intermediate students. Constructionist epistemology purported that meaning evolves from worldly interface and that meaning is subjective to individuals based on interpretation of experiences or occurrences (Alford, 2012). The emersion of the researcher within the context of the research surrounding aided in objectifying the data being gathered because the researcher

was within close proximity to those being evaluated (Alford, 2012). Constructionism was the theory most often relied upon when conducting qualitative research. The qualitative approach required awareness of the suppositions, opinions and principles that inform research queries (Alford, 2012; Baxter & Jack, 2008).

The use of multiple evaluative methods of data collection and analysis, including interviews and observations, questionnaires, surveys, and recordings, allowed for comprehensive research and reduce bias from one type of analysis because credibility is increased (Baxter & Jack, 2008). In addition, using multiple data sources allowed for a comprehensive view of instructional occurrences. A case study approach is undertaken based on the real-life context and genuine interest of the topic focusing on descriptive and intrinsic attributes (Baxter & Jack, 2008). Using a single case study approach provided the opportunity to compare and contrast phenomenon being evaluated, which in the study were intermediate teachers' instructional practices and student achievement. Although time consuming, research conducted using this format was deemed trustworthy and rigorous.

Utilizing case studies as an evaluative tool allowed researchers to extrapolate phenomenon that maximizes the use of inferential statistics to identify and analyze trends between professional development and student impact. A vast population was not required to establish patterns that produced descriptively significant results so long as the inferences and implications remained consistent and saturation levels were reached in a manner conducive to exist within the population under investigation (Adams & Lawrence, 2015).

Research Population and Sampling Method

Research Population

Participants for the study were selected from teachers in an urban elementary school district located in the southern portion of the United States. The public school system has over 61,000 students and approximately 7,500 employees. More than half of the district's employees are skilled teachers who have achieved effective or highly effective on annual performance evaluations and are state certified. Approximately 42% of the instructional staff holds a master's or advanced degree. There are 45 elementary schools, 12 middle schools, nine high schools, two combination grade schools, 13 alternative education schools and eight charter schools in the district. Demographically, the student population is 61% White Non-Hispanic, 15% Black Non-Hispanic, 18% Hispanic and 6% Multiracial, Asian/Pacific, or Native American/Alaskan Native. The percentage of students eligible for free and reduce-priced meals is 61%.

The elementary school for the study is one of 45 elementary, K-5, schools within the district. Located on the west side of the county, the Title I school has approximately 582 students enrolled with a composite staff of 27 general education teachers, nine exceptional student education professionals, five special area instructors, and 13 administrative and support facilitation staff members.

Within the county, 55% of the intermediate students demonstrated a level three or above proficiency on the annual English Language Arts assessment compared to 56% achieving the same level of proficiency for the state (State Standards Assessments, 2017). From the target school, 58% of the 95 third-grade students, 59% of the 95 fourth-grade students, and 43% of the 74 fifth-grade students scored satisfactory or above on the Spring 2017 English Language Arts state assessment. Although third- and fourth-grade results demonstrate mastery greater than the

district average, outcomes indicate the need for greater remediation in literacy because the state's accountability measure under the Every Student Succeeds Act is that all students beginning at grade three should be reading on grade level as determined by state standardized tests (State Department of Education, 2016).

Sampling Method

During the second quarter of the 2017-2018 school year, 17 educators from an urban elementary school site were initially invited to participate in the study, 12 intermediate general education teachers and five exceptional student education instructors. Only 13 of those invited responded with consent. Those who signed the consent form to participate were designated as respondents. Using purposive sampling half of the respondents were assigned to Cohorts A and B. Only Cohort A received the professional development training.

Equal groups were created in coordination with site-based administrator to control for extraneous factors of experience, educational level, and years in current school district. Consideration was given for teachers with less experience to participate in Cohort A in an effort to strengthen instructional skills but was not a determining factor in final assignment due to the need to have balanced groupings and reduce potential for bias. Demographic information gathered for participants was categorized based on pre-determined ranges for experience, educational level, and years in current district. From categorical groups respondents were assigned to Cohort A and Cohort B. Cohort A received professional development in literacy and reading comprehension. Cohort B received professional development following the conclusion of the study, as required by school administration, but not as part of the study. Educators from Cohort A were interviewed for recurring themes regarding efficacy and professional development.

General education teachers participated in a series of evaluative processes designed to measure teachers' attitudes and behaviors regarding teaching literacy and reading comprehension.

Instrumentation

Several instruments were used for this study. They include Woolfolk Hoy's Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001), a needs assessment survey, professional development assessment survey, teacher interviews, and an evaluation of student assessment data. Each of the instruments is detailed below. To further ensure credibility and validity data triangulation and member checking were used (Baxter & Jack, 2008).

Teacher Sense of Efficacy Scale

The Teacher Sense of Efficacy Scale, long version, was used as the Pre-/Post-Professional Development assessments. The scale, developed by Tschannen-Moran and Woolfolk Hoy in 2001 (Tschannen-Moran & Woolfolk Hoy, 1998), was created to measure teacher attitudes and beliefs regarding efficacy. The scale was developed in two formats; long, consisting of 24 questions, and short, utilizing 12 questions, to assess educator perspectives. Employing a Likert scale format, the tool was constructed to analyze efficacy in student engagement, instructional strategies, and classroom management. Additionally, this scale was identified as a measurement tool because reliability has been established based on the following statistics (Tschannen-Moran & Woolfolk Hoy, 2001).

Table 1

Sense of Efficacy Scale Reliability Chart

	Long Form			Short Form		
	Mean	SD	Alpha	Mean	SD	alpha
Engagement	7.3	1.1	.87	7.2	1.2	.81
Instruction	7.3	1.1	.91	7.3	1.2	.86
Management	6.7	1.1	.90	6.7	1.2	.86

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

Needs Assessment Survey

Needs assessments aid in recognizing and quantifying growth opportunities and techniques for improvement. Although educational settings often identify learning programs prior to conducting needs assessments, it is vital to evaluate areas of need to ensure material and content are appropriate and learning is meaningful for participants (New York City Department of Education, 2014). Needs assessments are typically conducted prior to any professional learning as a means of pinpointing the most beneficial development experience.

Thus, individual participant needs assessment surveys were utilized to identify the most impactful professional development. The survey consisted of 16 questions regarding instructional materials and reading assessment and instruction in a 5-point Likert scale format and one multiple select question. Three sections totaling 17 questions were posed to teachers. Section one consisted of five questions addressing instructional materials. Section two was comprised of 11 questions focusing on reading assessment and instruction. Section three provided an opportunity for respondents to select from a list of eight designated and one undesignated, other, opportunity for literacy Professional Development. Conducted at the beginning of the study, during a staff meeting for the 2017-2018 school year, the survey was administered for the

purpose of gathering information to construct the literacy professional development session. Once complete, a literacy focused learning opportunity was identified in collaboration with district reading specialist to meet participant needs as it pertained to improving student literacy achievement.

Professional Development Assessment Survey

Upon conclusion of the professional development session participants evaluate the professional development session using an online evaluation tool developed by the FVCS School District (pseudonym). In Likert scale format, the survey consisting of 10 questions has been in place since 2013 and received a state reviewed Professional Development rating of four, indicating excellence, during its last review. The survey is disseminated to all professional learning participants at the conclusion of a session through the District's My Personal Growth System, PGS, system, which is employee specific. This method provides an opportunity for all participants to provide feedback on learning sessions; however, completion is not mandatory but highly suggested.

Two evaluations are completed by participants. The first provides facilitators and the Professional Learning and School Improvement Department with feedback on the learning event, while the second addresses the impact the session had on participants' professional practice and student achievement directly. Each year the Professional Learning & School Improvement Office analyzes compiled evaluations and reports results to stakeholders.

A replica of the district's Professional Development Assessment Survey using Qualtrics was used to evaluate teacher attitudes regarding the literacy focused professional development session provided.

Interviews

Teachers from Cohort A were individually interviewed in this study utilizing a semi-structured interview format. The interview data retrieved was used to explore what general perceptions, expectations, and experiences the teachers held regarding professional development. Interview sessions were conducted and recorded using a password protected program, transcribed, and member checked during implementation for thematic codification following the learning cycle (Commitante, 2014). Example questions included:

- What are your perceptions of the Professional Development as it related to your instruction in the classroom?
- How confident did you feel implementing the literacy strategies learned following the learning experience?
- What were some of the strategies that you found relevant for instruction in the classroom based on the professional development? How were they used in instruction?
- What success or challenges did you encounter with strategy implementation? If challenges, how did you resolve? Are you more confident in resolving challenges now?
- Would you recommend this strategy to others? Why or Why not?
- What suggestions do you have for improving the professional development? What would you like to see added?

***i-Ready* Student Assessment**

Standardized testing data in reading was used to assess students' progress. The district uses *i-Ready* by Curriculum Associates as a means of providing literacy instruction, assessment, and progress monitoring. *i-Ready* diagnostic assessments were used as pre- and post-tests in October and February. Trends in the data were noted. The pre-test occurred prior to professional

development and the post- test was administered after the 10-week intervention following professional development training. Outcomes were explored using descriptive statistics. Student names were not used only summary grouped scores.

Demographic Questionnaire

To collect demographic information on participating teachers and to assess basic attitudes toward reading and teaching practices a questionnaire was completed by respondents. The information collected was used to determine whether or not tenure, age, grade level, or other demographic factors impact participation and engagement in professional development, feelings of efficacy, or changes in instructional practice. Questions covered content comparisons, instructional practice methodology, instructional content preferences, professional performance self-assessment, certification and experience background, and gender. The nine-item survey included five questions (four closed- and one open-ended), plus four demographic questions. The closed-ended items employed the use of 5-point Likert scales and were administered through Qualtrics.

Data Collection Procedures

Needs Assessment Survey

The survey was sent to all 13 participants through Qualtrics. Questions focused on reading materials, curriculum resources, assessment, instructional time, literacy opportunities, techniques and strategies, parental involvement, collaboration, and areas of personal development. The survey was conducted at the beginning of the study using Qualtrics for the purpose of gathering information to construct the literacy Professional Development session. Attendees used technology, computers or phones, to complete the online survey. Once complete,

a literacy focused learning opportunity was identified in conjunction with the district reading specialist to meet participant needs as it pertained to improving student literacy achievement.

Demographic Questionnaire

A nine-item survey was completed by the 13 respondents providing relevant demographic information once participant consent was received. Completed surveys provided information regarding teachers' grade levels, gender, years of experience, levels of education, and attitudes represented within the participant group. The Qualtrics-based survey was emailed to respondents' school mailbox. This promoted confidentiality and anonymity. Qualtrics provided tracking for returned submissions and sent a reminder if responses were not received within five school days.

Teacher Sense of Efficacy Scale

Similar to the demographic survey, the Teacher Sense of Efficacy Scale was distributed through Qualtrics to all 13 participants at the onset of the study. Participants were given one week to complete the scale. Once completed scales were received they were assessed and stored for subsequent comparison. At the conclusion of the learning activity all scales were evaluated based on the rubric provided by Woolfolk Hoy and Tschannen-Moran (2001).

At the conclusion of the implementation and intervention process teachers in Cohort A, who participated in the professional development session, completed a second Teacher Sense of Efficacy Scale. Respondents had five school days to complete the survey before a reminder was sent via Qualtrics. This process again ensured a greater level of confidentiality and anonymity, as well as verified that all participant responses were accounted for.

Professional Development Assessment Survey

A 10-question survey, using Qualtrics, was disseminated to all professional learning participants in Cohort A within 48 hours of the conclusion of the literacy and comprehension Professional Development session. Responses to the Likert scale survey were returned to researcher electronically. Five school days were provided for completion.

Interviews

Each semi-structured interview was scheduled during non-instructional hours. Sessions were conducted in 40-minute intervals (Kao, Tsai, & Shih, 2014) with teachers from Cohorts A and B. All interviews were audio recorded using a password encrypted program and transcribed. Once password encrypted tapings were transcribed and member checked they were deleted. Verbatim transcripts were hand codified for key words and phrases identified by researcher prior to interviews. Additionally, similarities and differences were acknowledged and summarized for evaluation.

***i-Ready* Student Assessment**

Summary student assessment data retrieved from *i-Ready* diagnostic assessment was compared to measure changes in student progress and achievement following 10-week intervention. Summary data retrieved from teachers in Cohorts A and B was used for comparison, however no personal student identifiers were used.

Identification of Attributes

The constructs for this study were: self-efficacy, achievement, and professional development. Due to the abstract nature of each of these variables neither direct observation nor physical assessments were available to test them (Adams & Lawrence, 2015). Individual teacher self-efficacy was measured prior to and post- implementation of professional development using

the Teacher Sense of Efficacy Scale (Woolfolk Hoy, 2001). Similarly, professional development was measured using a five-point Likert scale survey. Student achievement was evaluated by comparing *i-Ready* pre-/post- literacy assessments, one prior to professional development and the other following professional training and implementation.

Data Analysis Procedures

Needs Assessment Survey

Descriptive statistics was used to note trends for the Needs Assessment Survey. At the conclusion of data collection, tabulated responses indicating frequencies were printed for evaluation and shared with district reading specialist to determine professional development offered. Data captured was stored within the Qualtrics system, which is secure and password protected.

Demographic Questionnaire

Descriptive statistics were used to assess the data. The Likert scale format of the questionnaire prompted the use of descriptive statistics. All questionnaires were distributed and analyzed using Qualtrics.

Teacher Sense of Efficacy Scale

The Teacher Sense of Efficacy Scale was evaluated using descriptive statistics. The ranges of the Likert scales provided the recurrent measures necessary to arrive at a mean and standard deviation for teacher efficacy and professional development (Adams & Lawrence, 2015, p. 359).

Professional Development Assessment Survey

Completed surveys were evaluated using descriptive statistics because the instrument was created in a Likert scale format. Descriptive statistics allow central tendencies, variability

measures, and spreads to be identified and used to derive the standard deviation (Adams & Lawrence, 2015, p. 359), thus allowing assumptions to be made regarding the efficacy of the Professional Development activity. Hard copy files were maintained off-site in a secure location once scanned to an encrypted file for safe keeping.

Interviews

Conversely, interviews were hand codified as part of their analysis to identify recurring themes. The themes noted like motivation, impact, engagement, instruction, and management were evaluated until a saturation level was reached using primarily a deductive coding framework approach. The researcher remained open to inductive thematic network analysis as alternate themes were uncovered (Attride-Stirling, 2001; Pope, Ziebland, & Mays, 2000). Descriptive analysis was used to communicate thematic findings. Understanding the demographic information enhanced comparative analysis of themes as impacted by certain factors like experience and previous literacy training (Adams & Lawrence, 2015, pp 109 & 114).

***i-Ready* Student Assessment**

Descriptive statistics were used in measuring changes in student achievement because it allows for the comparison of two factors (Adams & Lawrence, 2015, p. 358). Utilizing descriptive analysis, consistency of student groups made this the most effective method of measuring variances between the first and second administration of *i-Ready* tests. This method of evaluation calculated and summarized variations derived from class scores on the reading tests and provided visual representations of the change in achievement that occurred.

i-Ready assesses student proficiency on grade-level skills. The program evaluates students' growth from one assessment to the other and identifies areas for targeted remediation. *i-Ready* assessments comply with the Standards of Psychological and Educational Testing

(Curriculum Associates, 2014) and have been audited by researchers from the University of Massachusetts at Amherst. Field testing was also conducted on over 2 million students. *i-Ready*'s strong test metrics makes it a valid and reliable tool for conducting this study (Curriculum Associates, 2014).

Limitations of the Research Design

Case studies are limited in that they are not quantitative in nature making them subjective. They also lack the ability to be verified because they are based on experiences and opinions of individuals, which could cultivate biases if not measured against similar research. Another challenge to conducting case studies occurs with generalizations because the results of each case may require independent analysis versus using sampling strategies or other inferential statistics that allow more general conditions or judgments to be made about the sample data collected (Trochim, 2006). The researchers should also pay special attention to interpretations ensuring that bias does not impact the study. Identifying causal relationships may also pose challenges within a case study because some indicators may not be as salient as others in specifying connections (Adams & Lawrence, 2015).

Several factors like teacher transparency regarding personal efficacy, not implementing professional development with fidelity, changes in student enrollment, and overgeneralizations about professional development posed limits to the research (Commitante, 2014; Quint, 2011; Tschannen-Moran & McMaster, 2009). Ensuring educators had clear understanding the nature of the study, the questions being asked, and the study's implications overall served to minimize these effects; however, some factors like student transition or teachers not responding to the treatment were beyond the control of the researcher.

Additional limitations included the researcher's dependence on the district reading specialist's availability to identify and provide professional development once results of the needs assessment survey was provided. Also, the researcher's limited insight into the content of the professional learning prior to the training limited the researcher's ability to forecast outcomes from the learning session (for example, the introduction of task cards as a research-based strategy that teachers were unaware of prior to professional development).

Validation

Internal and external validity are relevant in research because they aid in objectifying outcomes within their respective disciplines. Internal validity specifically authenticates the results of a study within its respective setting by demonstrating relationships that can be sustained by similar research. Consequently, external validity generalizes study conclusions, making the effects transferable or applicable amongst a variety of fields or situations. Both internal and external validity must be mindful of the impact resulting from confounds, which affect study variables unintentionally (Adams & Lawrence, 2015). Results of the literature review support the hypothesis that significant difference exists in student achievement after teacher participation in the professional development. The use of validated measurement tools, such as Woolfolk-Hoy's Teacher Sense of Efficacy Scale (2001) and Professional Development Survey, also strengthens the legitimacy of the study because they have been used across curricula over time and have produced consistent, trustworthy, credible and confirmed findings within each.

Controls for extraneous variables and confounds, such as years of experience, degree matriculation, and years of service within the school district, were addressed using purposive assignment to ensure comparability between Cohort A and Cohort B. Additionally, only scores

from students who completed both sessions of the *i-Ready* Literacy assessment were included in measuring achievement changes. Transient students who participated in initial iReady literacy testing but who did not complete the subsequent session were omitted as were those students who joined classes after the October administration was conducted.

Expected Findings

Findings were expected to coincide with previous literature indicating a connection between professional development and student achievement. As teachers engaged in professional development focused on literacy self-efficacy would hopefully be improved. Enhanced ability and confidence would likely alter instructional practice thus resulting in increased student achievement. Findings might also demonstrate no significant impact of teacher demographics on study outcomes as such factors are secondary to how effective and prepared an educator feels when providing reading instruction.

Ethical Issues

Ethics play a vital role in research because it protects participants from evident or potential harm. The nature of the study posed limited ethical risks. The evaluator was not in a supervisory role for participants; thus, no adverse impact existed with employment for the duration of or subsequent to the conclusion of the investigation. Informed consent was received from all participants as well as administrators for data retrieved for analysis. Consent for validated measurement tools was acquired to ensure no copyright or plagiarism infringements existed. Furthermore, surveys were anonymous and student data was delineated by teachers and provided to researcher as a collective group not individually to ensure student identities were kept confidential. No preliminary results were shared with district administrators to ensure

neither bias nor tampering occurred that could possibly impact data (Adams & Lawrence, 2015, pp. 3–10).

In order for the research to be valid a level of transparency and relationship should exist between researcher and participant. Therefore, researcher established and maintained parameters by which interactions with subjects occurred and they were consistent amongst all contributors. Some teachers required more support from the site based Academic Coach than others for various reasons indicating a need for differentiation in coaching and support during treatment based on the premise of need equity. This was done to provide consistent and cohesiveness in strategy implementation derived from professional development (Adams & Lawrence, 2015, p. 232).

Summary

The purpose of this single case study is to understand how professional development for teachers in literacy and reading instruction, is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students. Reconciling the effects of teacher participation in professional development on student achievement scores, how teacher efficacy impacts student achievement, the perception of teacher level of efficacy after the professional development training, and teacher acuity of changes in instructional practices after the professional development training would hopefully demonstrate significant difference exists in student reading comprehension achievement after teacher participation in the professional development.

Covered in this chapter was a comprehensive overview of the study, which included specifics of the study purpose, research questions, hypothesis, operational variables, research design, site and target population, sampling method, implementation, data analysis, limitations

and delimitations of the research design, internal and external validity, expected findings, and ethical issues in the study. Explicit descriptions of the sampling methods; Teacher Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001), Needs Assessment, Professional Development Assessment, Demographic Questionnaire, Interviews, and Student Assessment Data, how each was implemented, and how the data was retrieved were analyzed to aid in understanding how the study was conducted.

The next chapter on data analysis provides a detailed evaluation of the study process in six sections. Chapter four's introduction briefly reviews each of the components of chapters one through three to include the purpose and focus of the study, the research questions, data analysis, results, and findings, and the credentials of the investigator before transitioning into a description of the actual sample used for the study. The third section of the chapter highlights research methodology and analysis in the form of a summary with detailed information provided in the appendixes. This section of chapter four will also serve as the connector between chapters two, three, and four. The summary of findings recognizes the themes and patterns derived from coding for synthesis in relation to how findings respond to research questions. Prior to chapter four's summary is a presentation of the statistics and the outcomes derived from the information. This summary includes detailed descriptions of the findings and connections made but not draw or provide conclusions that transcend the data itself. Finally, the summary briefly reviews each component of chapter four and the transition to chapter five.

Chapter 4: Data Analysis and Results

The purpose of this single case study is to understand how professional development for teachers in literacy and reading instruction is perceived by teachers as influencing levels of self-efficacy, teaching practices, as well as, and as a result, affecting the achievement levels for students. Also examined were the trends noted in student achievement following teachers' engagement in professional development. The *i-Ready* test was used to assess student achievement. Teachers in grades 3 through 5 were divided into two cohorts. One group, Cohort A, received the professional development training and modeling of the strategies, plus coaching. Teachers in Cohort B will receive the same learning opportunity later on in the school year.

The professional development training was designed to improve instructional practice and enhance teacher self-efficacy in teaching literacy skills. Changes to teacher self-efficacy was examined using Woolfolk-Hoy's (2001) Teacher Self-Efficacy Scale prior to and following professional development session and implementation to identify whether or not there were differences in confidence levels. Perceptions of the benefits of the professional learning session were evaluated. Included in the chapter were research questions, research instruments, participant demographics, and specifics of the literacy professional development. The chapter was concluded with a summary of the results.

Research Questions

Four questions were addressed for this study. They are as follows:

Research Question 1

What was the perception of teachers concerning the training received and the usefulness for teaching literacy? What aspects of the training did the teachers find most beneficial?

Research Question 2

What is the perception of teachers' level of self-efficacy after the professional development training?

Research Question 3

What is the teachers' perception of changes in instructional practices after the professional development training?

Research Question 4

What trends were noted in the student achievement scores of the *i-Ready* test after teacher participation in professional development?

Description of the Study Sample

The study sample consisted of 13 teachers from grades three through five. Two of the teachers were males and 11 females. Professional experience ranged from one to more than 30 years. Only one of the teachers held a master's level degree. The other teachers had a bachelor's level degree.

The participants were divided into two groups for the study, Cohort A, which was the trained group, and Cohort B, the non-trained group. There was an attempt to balance the groups by years of experience, degree attainment, and gender. Teachers in Cohort A received literacy focused professional development during the course of the study. Cohort B received the same training but later in the year.

The first cohort consisted of seven teachers in grades three through five. Teachers were placed in the cohort groups by the researcher in conjunction with the site based administrator. Both groups included teachers with more experience. Below is a table with the demographics for the two cohort groups.

Table 2

Demographics of Participants

Teacher	Current Grade Level	Gender	Years Teaching	Highest Degree Earned
Cohort A				
A	5	F	1-3	BA/BS
B	5	F	1-3	BA/BS
C	5	F	1-3	BA/BS
E	4	F	1-3	BA/BS
G	3	F	4-5	BA/BS
K	4	F	6-10	BA/BS
M	3	F	6-10	BA/BS
Cohort B				
O	3-5	M	4-5	BA/BS
F	4	F	6-10	BA/BS
N	3	F	6-10	BA/BS
L	3	M	11-15	MS/MA
I	5	F	<15	BA/BS
J	4	F	<15	BA/BS

Research Methodology and Analysis

Professional Learning

Dividing the group of teachers into two cohorts also allowed the district reading specialist conducting the professional development to better provide individualized coaching to teachers on the strategies introduced in the professional development. The teachers selected for participation in Cohort A received training and coaching from December until February. The second cohort received the same training after the study completion in March. Professional development for the first cohort was conducted over a 10-week period. After the professional training session coaching on the literacy strategies introduced in the training was provided for Cohort A.

The professional learning session held for Cohort A was conducted in the Media Center of the school site with eight teachers and the academic coach in attendance. The session was conducted on a Tuesday afternoon for approximately 90 minutes. The session was conducted by

a district reading specialist with a background in elementary education as a primary classroom teacher and campus-wide academic coach prior to becoming a district representative. Training included a PowerPoint presentation, task cards, the use of computers to complete hands on activities and research, and opportunities for discussion and collaboration.

A needs assessment survey was used to identify areas of need in regard to literacy instruction as deemed by teachers. All 13 participants received the needs assessment survey via email through Qualtrics after consenting to participate in the study, but only 10 completed the assessment. Data gathered by the researcher was reviewed to determine areas of need as identified by teachers before being shared with the regional reading specialist. Teachers indicated they would benefit from professional development on comprehension skills and strategies most, followed by curriculum and standards alignment, and improving reading in content areas. Teachers’ input from the needs assessment was used to inform the professional development topic because effective professional development should be relevant to the individuals participating in the learning opportunity (Avalos, 2011; New York City Department of Education, 2014).

Table 3

Professional Development Needs Assessment

Area of Professional Development	Number of Requests from Participants
Phonological processes (phonemic awareness/phonics)	2
Comprehension skills and strategies	7
Spelling and vocabulary development	2
Curriculum and standards alignment	4
Improving reading in the content areas	3
Writing and district rubrics	2
Selecting, administering, and evaluating results from assessments	1
Flexible grouping and management	2

Of the teachers completing the needs assessment survey, 50% somewhat agreed that they had access to relevant district and state materials, 60% somewhat agreed that appropriate texts and supplemental materials were available, 30% of respondents indicated they somewhat agree that the adopted reading series was appropriate. Yet another 30% stated that they neither agreed nor disagreed that the adopted reading series was appropriate. When asked whether or not teachers felt they had adequate access to assessment instruments that could be used with students, 50% somewhat agreed.

Task cards were introduced during the training (see Appendix D). These task cards were developed by the state with assistance from Pearson. The task cards are published on a website and available for all teacher use in the district. Tasks are aligned with all state standards and provide guidance for teachers on reading strategies to provide appropriate and expected student skill progression between grades (Edenfield, 2015). Tasks are listed by title, grade, standard and description of the learning objective for students. A materials list is also provided for teachers along with a list of planning considerations for English Language Learners. The tasks cover all of the standards and included teaching strategies for each (Table 4). Tasks address each of the grade level English Language Arts standards in literature and informational texts (see Appendix C).

Table 4

Task Card Contents

Task Title	Main Idea & Key Details
Grade	4
Standards	Common Core Standard example- Determine the main idea of a text and explain how it is supported by key details; summarize the text.
Description	Students will read an informational text to identify the main idea. Students will identify the key details that support the main idea and explain how the key details presented by the author support the main idea.
Materials	Passage identified from the reading text Main Idea and Key Details Graphic Organizer (one copy per student) Teacher Checklist for Main Idea and Key Details
Considerations for Planning-detailed strategies are provided as well for students who have not gained the previous knowledge as required.	Students have prior knowledge of how to identify main idea in an informational text. Students have prior knowledge of how to identify key supporting details in an informational text. Students have prior knowledge of and experience with explaining how key details in an informational text support the main idea. Students have prior knowledge of how to record information from independently read texts utilizing a graphic organizer. Teacher may replace the attached passage with another grade level passage in curriculum.
English Language Learner Considerations:	Assist ELLs in making connections between other toads or frogs (or any similar animal) and the text. The vocabulary can be discussed with students using various methods to infer meaning – for instance: using visuals or other multi-media, identifying positive cognates in students’ language, acting out the events in the story, etc.

Source: Adapted from the State Department of Education Teacher Toolbox, 2018

Although not listed in the example of the task card, resources listed on the task cards include interactive tools that aid teachers in effectively implementing teaching standards, literacy

passages with question sets, and mastery assessments. The lesson plan format was laid out so that anyone could pick it up and feel confident in providing effective literacy instruction. The organization of the tasks on the state website made it easy to find passages that corresponded with the skills being taught and assessed. Assessments are designed to provide immediate feedback on students' mastery of skills and to guide classroom activities like remediation, formation of small groups, and intervention. The tasks provide opportunities for instantaneous feedback on students' current skillset, misconceptions, and to support knowledge and reasoning (Edenfield, 2015). Embedded within the tasks is also a level of teacher support that augments teachers' knowledge when implementing assessment tasks within the instructional reading block.

The professional learning session began with introductions and an overview of the material to be covered. Teachers were then instructed to work in heterogeneous groups with a mixture of participants from grades three through five within each group to identify the progression of literacy standards for the three grades represented. The goal was for participants to understand their level of understanding regarding standard progression. After the first seven minutes the district reading specialist called time to review the collaborative efforts of each group. As each standard was reviewed discussion ensued and teachers clarified understanding and addressed misconceptions. The activity lasted for 15 minutes.

During the first activity, the district reading specialist introduced the tasks using a PowerPoint presentation. She shared that the purpose of the tasks was to provide additional resources to teachers in pursuit of increasing student achievement. The district reading specialist communicated the origin of the tasks and why they were developed. She stated for the group that based on state English Language Arts scores Pearson was engaged by the state to assist them in developing a tool that teachers could use to support student learning. Once she informed the

group of the tasks purpose each participant was instructed to log into his or her computer or notate the steps to access the tasks for use and available on the district site.

Once the steps to access the tasks were provided, participants engaged in a hands-on activity. The activity modeled what the instruction in the classroom should look like when the task is implemented. The tasks are designed for use during small group instruction. At the conclusion of the learning session each teacher was given a copy of one task to begin using for small group instruction. The packet included task overview and lesson plan, directions, rubric, leveled questions for student differentiating, teacher mastery checklist by standard, and graphic organizer. A question and answer session concluded the professional development activity. All materials were provided electronically to participants by facilitator one day following the training, along with a professional development survey, which measured the professional development session itself.

Data Collection

Multiple methods were used to capture data throughout the course of the study. A timeline for each component of the research was constructed to track and manage each step throughout the progression of the study. Table 5 provides the data collection timeline that was used in phase one. Phase two, in which the remainder of the school staff received district literacy professional development training, was not included as a part of this research study.

Table 5

Data Collection Timeline

Date	Action
December 5, 2017	Literacy Professional Development held
December 6, 2017	Professional Development survey distributed
December 7, 2017	Coaching cycle began
December 11-15, 2017	Current literacy strategies used interviews conducted
December 18-20, 2017	Transcription and member checking completed
January 15-17, 2018	Implementation interviews conducted
February 13, 2018	Coaching cycle ended
February 13-16, 2018	Post- Teacher Self-Efficacy Survey distributed
February 27, 2018	Phase Two Professional Development conducted

Approximately four weeks following the professional development training, I, as the researcher, began to schedule interviews to be conducted at the conclusion of the learning cycle with teachers who were part of the professional learning and agreed to participate in the study. The first of the post- interviews was scheduled 12 weeks from the professional development session.

Study Data Findings and Results

Self-Efficacy Results

The Woolfolk Hoy’s (2001) Teacher Self Efficacy Survey was administered to the study participants in both cohorts prior to the professional development to determine perceptions of self-efficacy. There were 24 questions in the survey presented in Likert Scale format ranging from 1 (none at all) to 5 (a great deal), the scale was intended to measure self-efficacy in three areas. The first area evaluated is student engagement or how well the teacher felt he or she was able to motivate low performance and interest students in reading. The second area was instructional strategies which measured how well teachers felt they could provide and integrate a variety of learning strategies within the literacy block. The last component of the scale focused on student management as a means of identifying teachers’ perceptions of the ability to minimize

and contain behaviors that could disrupt or impede the learning process. A breakout of the question sets that determined groupings is provided in Table 6 below with the full list of questions provided in Appendix E.

The results of the initial administration of Woolfolk-Hoy's Self Efficacy Scale (2001) revealed that 69% of the 13 teachers participating in the study demonstrated confidence in the ability to keep students engaged in the learning process. The same outcome was recorded in relation to perceptions regarding instructional strategies. The greatest sense of self-efficacy was felt in classroom management, at 85% indicating teachers felt very confident in the ability to manage student behaviors that could limit literacy and comprehension instruction. Table 6 shows each of the three sub-scales of the teacher self-efficacy scale utilized when exploring all the participants' sense of self-efficacy and the question numbers that correspond with the component being reviewed.

Table 6

Pre- PD Self-Efficacy Results (All)

Student Engagement	Q1	Q2	Q4	Q6	Q9	Q12	Q14	Q22	MEAN
Great deal (5)	4	2	1	4	2	2	3	2	2.5
Lot (4)	7	3	9	7	8	6	7	5	6.5
Moderate (3)	2	8	3	2	3	5	3	4	3.75
Little (2)								2	2
Instructional Strategies	Q7	Q10	Q11	Q17	Q18	Q20	Q23	Q24	MEAN
Great deal (5)	4	5	3	3	2	4	1	2	3
Lot (4)	7	5	6	6	3	6	7	5	5.625
Moderate (3)	2	3	4	4	5	3	5	5	3.875
Little (2)					3			1	2
Classroom Management	Q3	Q5	Q8	Q13	Q15	Q16	Q19	Q21	MEAN
Great deal (5)	6	8	7	4	4	5	1	2	4.625
Lot (4)	4	5	4	6	6	7	9	7	6
Moderate (3)	3	0	2	3	3	1	2	3	2.125
Little (2)							1	1	1

Following the 10-week learning cycle, the assessment was administered a second time to participants within Cohort A to identify changes in attitudes and behaviors regarding self-efficacy via email from Qualtrics. Pre-professional development attitudes were retrieved to make comparisons to post- professional learning mindsets and perceptions of self-efficacy as evidenced in Figure 1 below.

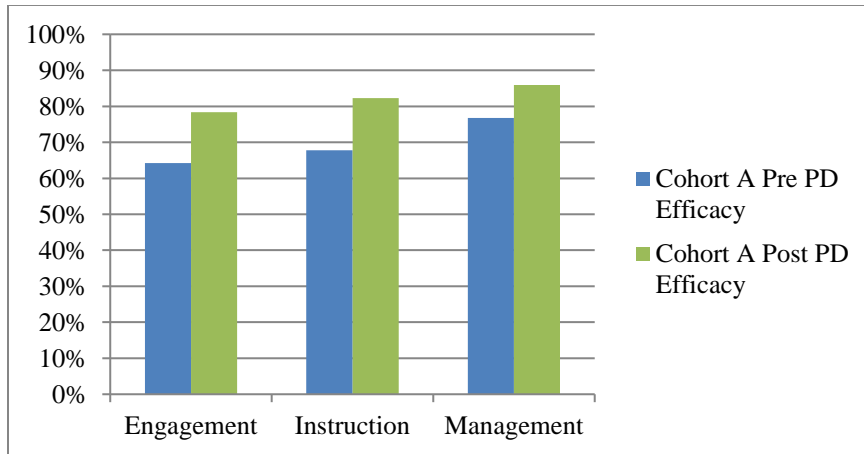


Figure 1. Bar graph showing difference in perceptions of self-efficacy between administration of pre- and post- self-efficacy assessments for participants from Cohort A.

Results from comparing the first and second administration of the scale from participants in Cohort A (see Appendix F) revealed that 71% of participants felt comfortable in the ability to engage students within the learning environment. The level of self-efficacy was increased in the area of instructional strategies at 86%. Lastly, 86% of teachers demonstrated a sense of security in ability regarding classroom management and being able to maintain control of the learning environment.

The data also evidenced increases in perceived self-efficacy in each of the three subscales. Engagement increased by 14% between the pre- and post- self-efficacy scales. In the sub-category instructional strategies, teachers' responses shifted upwards by 14%. A 9% increase was recognized in the area of classroom management.

Analysis of self-efficacy questions (see Appendix G) between pre- and post-administration of members in Cohort A indicated increase in 15 of the 24 questions, decrease on four of the questions, no change to the final four questions, and an increase and decrease to one question. Teachers' perceptions on five of the eight questions pertaining to student engagement showed increases. Instructional strategies evidenced gains on six of the eight questions with the other two questions remaining the same between the two administrations. Questions regarding classroom management demonstrated increase on four of the eight questions, decrease on two of the eight, no change to one question and an increase and decrease to the final question.

Professional Learning Evaluation Results

The effectiveness of the professional development conducted was measured using a 10-question survey adapted from FVCS training department. The survey was emailed, through Qualtrics, to participants for completion following the learning session. Questions were scored using a 5-point Likert scale measuring from 1 (none at all) to 5 (a great deal). Similar response categories were pooled to provide a more comprehensive analysis of data. The ranges combined were a great deal/a lot and a little /none at all. This combination left three categories: a great deal/a lot, a moderate amount, and a little/none at all to be explored.

The findings showed that all participants agreed that the learning experience made effective use of time and appropriate resources, the facilitator set clear objectives and was knowledgeable and had credibility with participant, time for discussion was part of the learning experience, the facilitator effectively responded to participant needs, participants would be able to use concepts from the professional development within his or her professional setting, and that teachers planned to implement learning through action research, additional professional reading, lesson study, or other form of professional inquiry or growth. Alternately, only 86% felt that the

level of differentiation provided during the session was appropriate to meet the needs of individual learners and 71% felt empowered to take on more of a leadership role within the learning community for literacy.

Table 7

Professional Development Survey Results

Survey Question	Strongly Agree/ Agree	Neither Agree nor Disagree	Strongly Disagree/ Disagree
The learning experience made effective use of time and appropriate resources (instructional technology) to focus on intended outcomes.	100%	0	0
Learning activities promoted an interactive climate where participants shared ideas, asked questions and shared opinions.	100%	0	0
Objectives set by facilitator were clear.	100%	0	0
The facilitator was knowledgeable and had credibility with participants.	100%	0	0
Activities were differentiated appropriately for individual learners.	86%	14%	0
Time for discussion was part of the learning experience.	100%	0	0
The facilitator effectively responded to participant needs.	100%	0	0
I will be able to use concepts from this professional development session in my own professional setting.	100%	0	0

Survey Question	Strongly Agree/ Agree	Neither Agree nor Disagree	Strongly Disagree/ Disagree
I plan to implement my learning through action research, additional professional reading, lesson study, or other form of professional inquiry or growth.	100%	0	0

***i-Ready* Results**

Data trends revealed improved student achievement scores between the first *i-Ready* diagnostic assessment, administered in October, and the second administration of the assessment at the end of February (Figure 2). Diagnostic results from all teachers in Cohorts A and B were reviewed for comparison of changes in class averages. The four teachers within Cohort A who implemented the professional learning task cards experienced greater gains in student achievement than those within the group who did not utilize professional learning task cards as evidenced by classroom averages provided in Figure 2. For example, Teacher C experienced the greatest gains with an 18-point increase. Teachers in Cohort A who implemented tasks during the literacy instructional block indicated students struggling with literacy and comprehension tasks and skills recognized greater learning outcomes overall. Teachers communicated hesitance in attributing results completely to the use of task cards because tasks were used in conjunction with Ready Reading. According to teachers the task card was beneficial in supporting the identification of students' current levels so instructional adjustment could be made that would contribute to greater achievement. They also noted students performed better on the *i-Ready* assessment for skills covered using the tasks.

Teachers in Cohort B who did not participate in the literacy professional training on task cards but continued their usual practices also saw increases in student achievement on the February *i-Ready* diagnostic assessment. Only one of the teachers in Cohort B did not record

improved student achievement. Results of a comparison between the results of Cohort A and B revealed that student gains for Cohort B were not as high as those in Cohort A. The greatest increase of 4-points was noted by Teacher N. Teacher L’s class improved by 3-points, Teacher I by 2-points, and Teacher F by 1-point. No change in achievement was recognized by Teach J and Teacher O experienced a 3-point decrease in class average (Figure 3).

Again, Teacher C experienced the greatest gains with an 18-point increase, which she attributed to consistent use of task cards in a small group setting, which she and other participants indicated they were unaware of at the start of the study. Teacher M saw an improved class average of 8-points and Teacher G, 7-points. Those teachers with the highest gains in student achievement each reported usage of task cards following training. Teachers M and G indicated they used tasks whole and small group with very similar results.

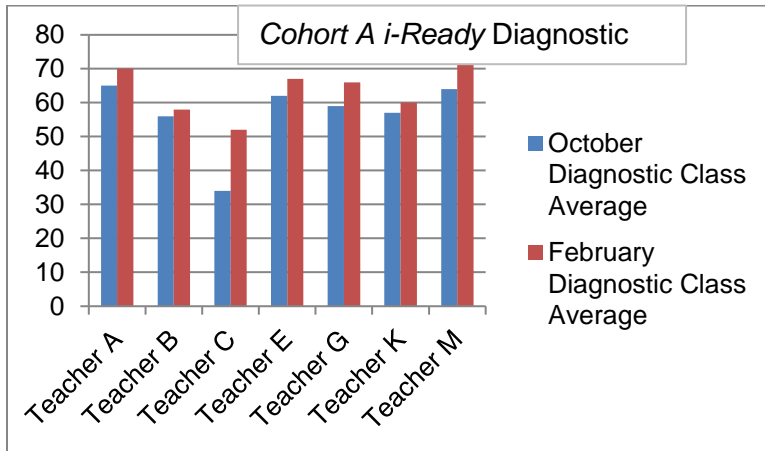


Figure 2. Bar graph showing difference in i-Ready data between October and February for class of teachers in Cohort A.

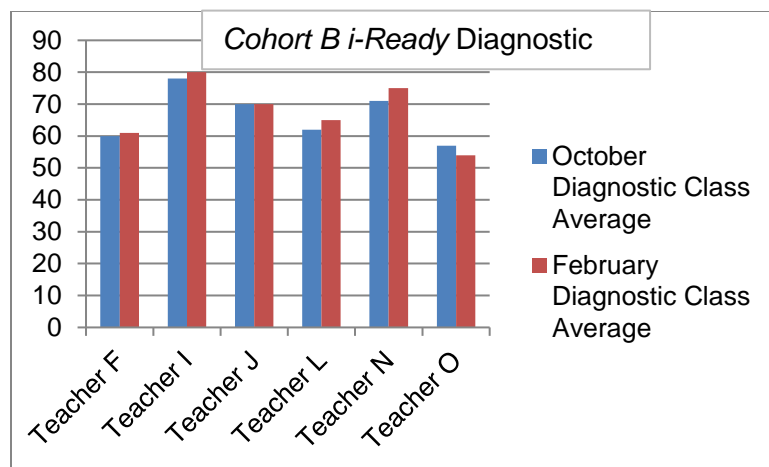


Figure 3. Bar graph showing difference in i-Ready data between October and February for class of teachers in Cohort B.

Coding of Interview and Survey Data

Hand coding was used to code data from interviews to identify themes. Once member-checking was completed by each interviewee coding began. First, interview responses were entered into an excel spreadsheet by teacher alias in an effort to maintain anonymity and confidentiality with each tab representing the question responses corresponded to. Sheets were printed out and multicolored highlighters were used identify repetitive word and phrases. Then, common comments were identified and circled using multi-colored ink. Once color coding was completed relevance to research questions was evaluated to determine whether or not a connection existed between participant responses and the questions posed. Interview responses were first categorized by relative subject then sorted by theme. Subjects used for pre-interviews included classroom model/strategy, school model/strategy, resources, classroom environment, training/support, and greatest impact on student achievement, which coincided with the interview questions used. Topics for post-interviews were struggles/hindrances, usage, instructional change, self-efficacy, support, ongoing training, and student achievement. Once all coding was

complete themes were identified based on the recurrence of interview comments. A snapshot of the coding process is included in Appendix H.

Themes

The following themes emerged from coding the data from the pre-interviews identifying current strategies to the post-interviews derived from Cohort A, who participated in the professional development training session. These included: instructional strategy use, resource availability, and professional development training. Themes identified from post-interviews were similar and included: time, resource availability, and professional development and training support.

Pre-Interviews

Instructional strategy use. Interviews conducted with seven teachers from Cohorts A and B revealed a variety of strategies and resources were used in numerous ways to provide literacy instruction. The UNWRAP and SPARKLE strategies were used in several classrooms during small and whole group instruction. These strategies are designed to aid in comprehension by providing an acronym for student use that will remind learners to focus on certain reading attributes as they engage texts. It is important to note that teachers commented they utilize these two strategies as a form of test preparation within the reading block.

Another resource identified by teachers to provide literacy instruction was Ready Reading. This district provided resource was used in small group settings because the formatting of the questions was more rigorous and akin to those on standardized assessments. Teachers stated the complexity of texts, in addition to questions, could be used as test preparation in addition to literacy development. Teachers noted consistency in routine and structure as a contributing factor for utilizing these methods within the learning environment.

Teachers also reported using summarizing, previewing text, text feature analysis, mental modeling, annotation, discussion, accountable talk, and gradual release as reading instructional strategies used within the learning environment from time to time based upon the text being used for instruction.

Resource availability. The compilation of responses once evaluated revealed an additional theme, a lack of available resources. Those interviewed indicated feeling they were at a disadvantage citing and criticizing the absence of a district adopted textbook as a source of consistent instruction. Participants reported spending significant amounts of time trying to locate resources to use during reading instruction. The concern communicated with this practice was whether or not the materials and resources selected were the most appropriate to meet the rigor of the standards being taught. One teacher commented that she referred to and relied upon the standards and her experience as a guide in her search, while others said they used a variety of district provided resources, which included the ELA module, Ready Reading, and Newsela. Most stated they chose to use supplemental materials and pulled resources from the modules for use where they saw fit.

Discussions regarding the modules provided by the district as a resource also revealed a lack of confidence in the materials because teachers stated that at times they were beneficial and others they were not. Educators said at times the lessons were aligned to the standards but other times they were not leaving them to identify other materials to provide instruction. Participants noted that the resources was often difficult to integrate into lessons because of printing and distribution requirements and limitations, some information was difficult to access or was no longer available.

Another challenge with available resources identified by teachers was the lack of assessment materials available to measure student mastery of concepts and skills.

Teachers retorted that evaluations were primarily formative with the summative assessment provided by the district at the end of the term. The challenge instructors indicated having with this process was that the material covered during the term using district provided resources and assessed formatively did not always match the expectations of the summative. Teachers commented that the outcomes, or scores, were used as motivators to encourage students to improve or celebrate successes.

Professional development training. The third theme was professional development or training. When asked specifically about professional development offered to educators the responses recorded were that trainings were minimal and isolated because teachers had to choose a specific learning track at the onset of the school year and had to continue it to the end. Therefore, if ELA was the track selected then teachers received professional learning in that subject area and nothing else.

Teachers reported that the mandatory trainings provided by the district were a waste of time because the information presented was irrelevant to them because the first hour was spent reviewing a PowerPoint presentation and the remainder of the time was spent doing nothing. They also noted disdain with the traditional stand and deliver format. One teacher commented that attendees for the trainings were from a variety of schools but that little to no time was given for authentic collaboration within the group which she felt would have been an opportunity to establish a professional learning community within the district.

Participants consistently shared that no professional development for the district provided resources was provided and the training received on Ready Reading was conducted once the first

year of use and lasted approximately 45 minutes. One teacher noted that much of her trainings throughout the year touched on pieces of the module even though the group was told not to follow it verbatim.

Post-Interviews

As a result of the interviews following participation in literacy professional development themes of time, resources, and professional development and training emerged.

Time. One theme that emerged from a review of participant interview responses was time. Varying time related factors impacted teachers' ability to integrate professional learning into the literacy block. Most of the teachers interviewed stated they did not have the time to appropriately implement the professional development learning due to time constraints within the literacy block with all the other tasks to be completed. They said they found the information beneficial and attempted to implement it but found doing so challenging because they had to use Ready Reading in small group to capture student data for the intervention purposes. They noted attempts to use resources simultaneously to get everything in because they found the task cards advantageous to student achievement.

In one case, the teacher was able to implement tasks during instruction but said she struggled finding time to analyze the data captured with her other instructional responsibilities. She indicated that now that she knows about the resource and how it works she will establish a routine for using the task cards for implementation at the start of the next school year because it would give her an opportunity to become more familiar with the resource and plan data analysis into her schedule. In another, the teacher noted that she definitely wanted to implement task cards into her instructional block but was unable to because of class changes that prohibited her

ability to do so. She stated that she would be implementing her learning now that she has a handle on her new class dynamics and time to do so with fidelity.

Resources. Resources were identified as a second theme from post-interviews with participants because teachers consistently remarked how delighted to have the task card resource available. Participants communicated their elation with discovering the resource and its ease of use. Teachers commented on how well presented the task cards were and their structure. They also stated appreciation for the tool's accessibility and ease of use.

Teachers also discussed the ability to transfer the structure and questioning techniques to other passages and subject area content effectively. Participants specifically highlighted the effective use of questioning as a means of measuring student understanding and skill mastery. Teachers also reported the most beneficial part was the tool's versatility and seeing how something created for all the teachers to use could be implemented in a variety of settings, whole group, small group, intervention, or remediation.

Many teachers said this resource changed the amount of time spent searching for materials to use for instruction. Teachers said they felt the tool made searches a lot more narrow when trying to find materials to use for different skills. They alleged it also made it easy to find passages with enough rigor to keep students on task and focused through the entire lesson.

Participants asserted that having the tool helped with not having to question whether or not the material used was good enough, was it the right rigor for this level, and does it address the content of the standard. One teacher stated that using the resource

introduced in professional learning improved her confidence because she feels she is asking the right kinds of questions to evoke critical thinking in her students, she is doing less of the reading and explaining and has released the reigns of discussions to the students for more in-depth discourse. Another teacher commented that using the tasks helped her improve her ability to identify and select texts appropriate for students' use.

Professional development and training. The final theme that emerged from participant interviews following participation in literacy professional development was professional development and training. Teachers said they were excited for the training and the resource that was made available as a result of the session because they were unaware that the tool had been available since the start of the school year. Participants also indicated feeling empowered because they felt more confident about the effectiveness of their literacy instruction and their ability to keep students engaged during reading instruction.

The professional development session was felt to be valuable, well-planned, interactive, and thorough by attendees. They indicated the information shared was very helpful and relevant since they didn't have very many resources to choose from prior to the session. One teacher said the training was eye opening because at first glance she thought the task cards were too complicated to use, yet after the training she was excited and ready for implementation. She also commented that she felt comfortable asking for support when needed as follow-up to the training. Another teacher said she found the task cards a good resource but that she would benefit from additional support and coaching on time management within her literacy block to get everything in.

Research Question Results

The following data findings directly address the research questions.

Research Question 1

What was the perception of teachers concerning the training received and the usefulness for teaching literacy? What aspects of the training did the teachers find most beneficial?

The perception of teachers concerning the training received and the usefulness for teaching literacy was that the session was very thorough and eye opening. Others noted it altered the time spent researching for appropriate resources. Teachers also discussed students' increased levels of engagement during literacy instruction and the ability to determine levels of student understanding and skill mastery.

Teachers found many aspects of the professional learning beneficial. Among them were changes to professional practice and student outcomes according to one participant. Another said the most useful part was seeing how easily the task cards could be integrated into any learning environment. Participants consistently reported greater awareness of the resource availability as most beneficial, in addition to having grade appropriate materials that meet the demands of rigor and skills based on State Standards at their fingertips.

Research Question 2

What is the perception of teachers' level of self-efficacy after the professional development training?

Perception of teachers' level of self-efficacy following the professional learning was improved because they stated they felt confident in the structure of the task cards and having the ability to follow a step by step process until they were comfortable using the strategy independently. Teachers commented on enhanced questioning techniques as a result of the

learning session because they were asking higher order thinking questions of students which made them feel more effective. Other teachers reflected on the ability to better select appropriate passages with the appropriate rigor and content to meet standards. One teacher stated she felt like a better teacher because she was able to shift the dynamics of her classroom from teacher led to more student led. So, as a teacher she said she felt like she was pushing her students more, which made her a better teacher in that aspect.

Research Question 3

What is the teachers' perception of changes in instructional practices after the professional development training?

Data collected indicated teachers' perception of changes in instructional practices after the professional development training was mixed. Some teachers indicated that the training improved their instructional practices because they were using resources that were rigorous enough, correlated with their instruction, aligned with standards, and was not something they had to spend forever locating. They stated this resource freed them up to spend more time unpacking the standard being covered than focusing on materials to use for instruction. Other teachers noted the flexibility of the task cards helped them implement the structure of the task cards with other texts and in other subject areas. Many participants switched to using task cards daily in preparation for end of the year assessments.

Research Question 4

What trends were noted in the student achievement scores of the *i-Ready* test after teacher participation in professional development?

The trends noted in student achievement scores on *i-Ready* achievement scores following teacher participation in professional development and teacher participant responses were used to

answer this research question. Class averages from the October diagnostic assessment ranged from 34 to 65 with a median score of 59. Subsequent class averages associated with the February diagnostic assessment ranged from 52 to 72 with a median score of 66. A 7 point gain was noted between all the classes on the post- diagnostic test (Table 8).

Table 8

i-Ready Diagnostic Data

	October Diagnostic Class Average (%)	February Diagnostic Class Average (%)
Teacher A	65	70
Teacher B	56	58
Teacher C	34	52
Teacher E	62	67
Teacher G	59	66
Teacher K	57	60
Teacher M	64	72

Source: Curriculum Associates, *i-Ready Diagnostic Report*, 2017

Summary

Described in chapter 4 were the major findings with the study. An analysis was conducted for the self-efficacy data collected using Woolfolk-Hoy’s Teacher Sense of Efficacy Scale (2001). The results from Cohort A and Cohort B indicated that of the three components of self-efficacy measured 85% of teachers demonstrated the most confidence in classroom management. Assurance in student engagement and instructional strategies was measured at 69%. The subsequent scale was only conducted with the seven teachers from Cohort B who participated in the professional development learning session. Between the pre and post- self-efficacy scales teachers’ perceptions shifted up by 14% in engagement and instructional strategies and 9% in classroom management.

Findings for the professional development session revealed teachers were in agreement in all areas of the professional development survey except two. Teachers felt the professional development session made good use of time and resources, the session was interactive and allowed opportunities for participants to share ideas and discuss, objectives were clear, the facilitator was knowledgeable, credible, and responded effectively to participant needs, and prepared teachers to be able to use the concepts from the training within the learning environment. In the area of differentiated learning 86% of the participants felt that the learning session met the needs of individual learners. Similarly, only 71% said they felt empowered to take on a leadership role within their learning community.

While, the *i-Ready* pre and post- diagnostic data revealed higher student gains from teachers within Cohort A who implemented the literacy professional learning received on task cards within the literacy block than those who did not, the results are still inconclusive due to extraneous factors such as the use of Ready Reading and modules. The most growth shown in the data was with Teacher C whose class average increased by 18 points, followed by Teachers M and G with gains of 8 and 7 points respectfully.

Hand coding of participant interviews uncovered multiple themes. Pre-interviews with teachers from both Cohorts A and B revealed teachers' perceptions regarding instructional strategy use, resource availability, and professional development training. Post- interviews with participants from Cohort A highlighted themes of time, resource availability, and professional development and training support.

Provided in chapter 5 is a summary of the results followed by a discussion of the analysis associated with the findings. Discussed are the results as they pertain to the literature.

Limitations of the study will be shared and the implications to policy and theory. The chapter will conclude with recommendations for further study as identified by the researcher.

Chapter 5: Discussion and Conclusion

The purpose of this chapter is to discuss and interpret the results of this case study designed to examine the perception of teachers on the professional development in literacy for grades third through fifth. In addition, chapter five is to discuss noted trends from the *i-Ready* test following teachers' engagement in professional development training on literacy strategies. Summarized in the chapter are the results of the data collected from interviews, self-efficacy survey, professional development surveys, and *i-Ready* data. Discussed are the findings and analysis for each of the research questions. Chapter 5 also includes a discussion of the results as they relate to the literature and limitations that impacted study outcomes. Implications for practice, policy, and theory are included to reveal how the study might influence future professional development opportunities in literacy for teachers. Recommendations for further research will precede the conclusion of the chapter and ideas for continued investigation into literacy and reading comprehension professional development for educators.

Summary of the Results

The single case study was designed to explore how professional development for teachers in literacy and reading instruction, is perceived by teachers as influencing their levels of self-efficacy, teaching practices, as well as, affecting the achievement levels for students. A group of 13 teachers from grades third through fifth were assembled into two groups. Cohort A consisted of seven teachers who received professional development in literacy and reading comprehension as part of the study. Cohort B contained the remaining six teachers that did not receive professional development but continued to utilize the instructional practices already in place. Tools used to conduct the study were Woolfolk-Hoy's Teacher Self Efficacy Scale (2001), Pre-

and Post- professional development interviews with participants, Demographic Survey, Needs Assessment Survey, Professional Development Survey, and *i-Ready* student assessment data.

Pre-interviews were used to determine current practices and perceptions of participants as a baseline comparison for the study prior to professional development training. Post- interviews were conducted for Cohort A; following the professional development session. Demographic information was captured using a demographic survey and a needs assessment. Teachers' sense of self-efficacy was measured before and after attending professional development using Woolfolk-Hoy's Teacher Self Efficacy Scale (2001), adapted for literacy and comprehension. The scale is recognized as a standard instrument in the discipline and has received high reliability ratings (Ross & Bruce, 2007; Tschannen-Moran & Woolfolk Hoy, 2001). The 24 question tool measures three areas of self-efficacy; engagement, teaching strategies, and classroom management using a five point Likert scale. The professional development survey was adapted from FVCS district PD follow-up survey and consisted of 10 questions answered using a five point Likert scale.

Student achievement data was reviewed using *i-Ready* student diagnostic data. Trends were identified by comparing pre- and post- diagnostic class average data. *i-Ready* was used due to its strong correlation to the standards and its ability to predict year end proficiency rates for learners (Curriculum Associates, n.d.). The Center of Response to Intervention considers strong assessment correlation to be above .70, which *i-Ready*'s ELA diagnostic received .84.

Professional development in literacy and reading comprehension received by teachers was provided by the district reading specialist. The focus of the training was English Language Arts (ELA) task cards. These task cards are a literacy tool developed by the state and are aligned with all state ELA standards in literature and informational texts. The resource is published on a

website accessible to all educators in the state and provides guidance on reading strategies. Each task card includes title, grade, standard, student learning target, materials needed, and planning considerations for English Language Learners.

Analysis of Results for Research Questions

Following are the analysis of the results for each of the research questions. The research questions were designed to explore teachers' perceptions of self-efficacy, teaching practices, and student achievement following participation in literacy and reading comprehension professional development.

Research Question 1

What was the perception of teachers concerning the training received and the usefulness for teaching literacy? What aspects of the training did the teachers find most beneficial?

Teachers indicated that the training was thorough and beneficial for classroom practice and is the type of training teachers would find beneficial in the future. Initially the tasks were viewed by teachers as complicated and hard. However, following the training teachers realized this was something they could do. Teachers stated the most beneficial part of the training was seeing how the tasks could be used in any environment whether it was a general education, exceptional student education (ESE), or intervention classroom setting. The teachers were unaware of the task resource provided by the state and found them beneficial. The teachers indicated having all the materials available in one spot on the district web site eliminated spending hours searching for appropriate materials. Teachers also noted the rigor of the texts included in the material in the tasks. Also beneficial was ability to measure levels of student mastery through a variety of formative and summative assessment. Three of the educators who participated in the training but did not implement the learning in the classroom said they would

definitely like to implement the tasks at a future time. The teachers cited changes to classroom dynamics due to student transitions from one class to another resulting from the loss of a teacher as a contributing factor of not implementing task cards during literacy instruction. Continued use of current district provided reading material was also declared another reason for not implementing task cards following the professional learning session. Educators noted the current district provided resource, Ready Reading, seemed to be effective so there was no need to change at the time.

Research Question 2

What is the perception of teachers' level of self-efficacy after the professional development training?

Teachers stated having that guidance and example allowed them to translate the structure to other lessons that were not included in the tasks. They particularly liked the questioning aspects included in the tasks because it provided guidance on the types of questions they should be asking to determine level of student mastery. Teachers also indicated that the tasks provided a place to focus by not having to question whether or not the materials being used for instruction were good enough, had enough rigor, or addressed the standard being covered. Prior to the training teachers indicated that felt they were reading the text to students due to time constraints, but now students are doing more of the reading.

The work included in the tasks, according to the teachers, is more student-led with the students interacting by giving feedback and answers. Therefore as students' self-efficacy is strengthened intrinsic motivation is elevated and students become more engaged in the learning process, which directly impact achievement (Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983; Ross & Bruce, 2007). Teachers also communicated that they felt like better teachers

because of the professional development. The teachers were asking more critical thinking questions and requiring students to think more critically in response. Teachers indicated they were pushing students to greater achievement, which made them better teachers. This persistence as a byproduct self-efficacy positively influences student achievement (Ross & Bruce, 2007).

Research Question 3

What is the teachers' perception of changes in instructional practices after the professional development training?

Teachers discussed continuing the use of the tasks within the learning environment because it is rigorous enough, correlates with instructional standards, and is not something they have to spend hours trying to locate. The teachers liked the fact that the tasks were easily accessible through the web site. Teachers who had not implemented the task tool stated that they would like to utilize the tasks in small group settings. Versatility of use was also highlighted by educators because tasks could be implemented in small group, whole group, intervention, or wherever the teacher felt it would be beneficial to students. This is especially beneficial heading into testing season because tasks are aligned with the state standards.

Research Question 4

What trends were noted in the student achievement scores of the *i-Ready* test after teacher participation in professional development?

The results in student achievement scores on *i-Ready* achievement scores following teacher participation in professional development were inconclusive. There were intervening variables that may have affected student scores. However, teachers in Cohort A who implemented the professional development noted struggling students performed better overall but could not attribute it solely to the use of the task cards because another reading program was

also used during the course of the study. Teachers indicated the task tool was effective in identifying students' current levels so instructional adjustment could be made. They noticed that students performed better on the skills covered using the tasks. Teachers also stated that the tasks pushed students to meet goals because they were being exposed to the same question types they would see on standardized assessments. Teachers who did not implement the tasks but continued to use the material provided by the district also noted improvement in student achievement because the Ready Reading curriculum was designed similarly to tasks cards in targeting key reading skills. Those participants who continued to use Ready Reading indicated they were already seeing results from the routine of the program which provided standards based instruction, practice, and assessments using the gradual release model and decided to continue with it. Teachers were also able to more effectively differentiate student learning based on tracking progression mastery embedded within tasks which allowed for targeted instruction. Teachers commented that students' *i-Ready* diagnostic scores in February improved on skills that were covered by task cards.

Teachers also reported feeling that learning became more student focused because of the use of the task cards. They stated the tasks improved their ability to question students more effectively and to select passages that were more aligned with the rigor required by state standards. This improved sense of self-efficacy coincides with Bandura's Theory (1995) self-efficacy. According to Bandura's theory, self-efficacy is the mechanism that governs behavior through cognition, goal setting, commitment to meeting goals, and perseverance (Abernathy-Dyer, Ortlieb, & Cheek, 2013).

Furthermore, Bandura posited that learning is a social process and that it occurs through social interaction, such as collaboration and emulation (Abernathy-Dyer et al., 2013; Bandura

1986). Therefore, through the learning provided by the literacy professional development session teachers were able to experience a task lesson through modeling and interact and collaborate with one another about implementation and materials. The training received not only enhanced teachers' sense of self-efficacy but it also served as a catalyst for instructional changes that improve literacy achievement for students. As a principal responsibility for teachers, fostering literacy achievement for elementary school aged youth (Abernathy-Dyer et al., 2013; Ainsworth, Ortlieb, Cheek, Pate, & Fetters, 2011; Ortlieb & Cheek, 2008) was augmented by participating in the professional development session. Thus, making teachers the most crucial element in establishing effective reading programs (Barone & Morrow, 2016).

Discussion of the Results

The emergent themes resulting from teacher interviews included instructional practices, resource availability, and professional development support in literacy instruction (Table 7). Pre-interviews were conducted with a total of seven participants, selected from both cohort groups, and used to identify teachers' instructional practices prior to participation in professional development. Themes uncovered in post- interviews were conducted with members of Cohort A, who received the training, to identify changes if any to instructional practice. Themes revealing included: time, resource availability, and professional development and support. Interview questions are provided in Appendix F and transcriptions are located in Appendix G.

Pre-Interviews

Instructional strategy use. Pre-interviews conducted with seven teachers, three from Cohort A and four from Cohort B, provided evidence that teachers selected and implemented a variety of strategies and materials within the learning environment. Teachers' responses indicated they used the district-provided materials differently in instruction because there was no

specified manner in which district materials were expected to be used by teachers. As a result, teachers developed their own methods for using the resources. Additionally, teachers stated that the school did not dictate the use of material for reading and method of reading instruction, nor did they dictate which district resources needed to be used in instruction.

Several teachers indicated they use the UNWRAP or SPARKLE strategy in the classroom to assist with comprehension. The district provided a reading program resource, Reading Ready for use in instruction. Teachers identified Ready Reading as a good source of test prep for individual or small group instruction. Also noted was the structure and routine of Ready Reading which allowed students to know what to expect from day to day. Teachers indicated the use of previewing the text, discussing text features, and assessing background knowledge for nonfiction text. Another strategy teachers discussed was summarizing while reading. Making mental pictures, highlighting textual evidence, reading text multiple times, and circling unknown words were also identified as strategies used during whole group instruction using the Ready Reading book.

Teachers also discussed the use of centers, discussions, and articles, magazines, and prompts for reading instruction passages provided by the district. Gradual release was referenced as the instruction model used in some classrooms because it was introduced at a previous professional learning opportunity. The Gradual Release instructional model is scaffolded instruction in which learning shifts from being teacher-focused to student-focused using an “I Do, We Do, You Do” methodology. Teacher used whole group and small group instruction combined with accountable talk where students engage in meaningful, respectful, and mutually beneficial discussions with one another.

Resource availability. The compilation of responses once evaluated revealed an additional theme, of available resources. Multiple teachers mentioned the problem of having to spend considerable time searching for appropriate instructional materials to meet the demands of the standards being taught and assessed. Teachers indicated they use the standards to guide instruction in the absence of curriculum and literacy materials. Although provided, some teachers communicated they do not follow the ELA curriculum map provided by the district because it is not always available, accessible, or aligned. Most teachers expressed the use of student data and personal experience to guide instruction.

Teachers noted the district provided a Ready Reading book and an ELA instructional module as resources for instructional use. Based on how educators use the resources within the learning environment, some teachers recognized the Ready Reading consumable book as a traditional textbook while others did not. However, in most cases teachers indicated using the Ready Reading book as their primary source of literacy and comprehension instruction but stated it is not always used. Teachers said they chose to use supplemental materials and pull them from the modules and use them where they saw fit.

The school district provides modules for teacher use as a guide or resource for instruction. Modules were designated a living document by the school district and are continuously being revised and updated. Teacher found that only some of the modules were beneficial. They indicated that the material is sometimes accurate for instruction but is not always available. Interviewees also discussed the difficulties they faced in accessing materials and modules provided by the district. Based on feedback received,

the resources were often difficult to locate within the module, access, and to send and receive from printing. Difficulty in preparing and distributing materials for student use (i.e., folding and stapling) was also discussed. The process of using the district materials provided is described as very time consuming.

Participants commented on the problem of needing to spend an exorbitant amount of time researching in order to locate supplemental materials that correspond with learning targets and outcomes. A research-based textbook was high on the priority list of teachers in providing effective literacy and comprehension instruction rather than the hodgepodge of materials that do not match the standards that is currently in use. Teachers communicated feeling of being at a disadvantage because of the lack of available materials to cover or meet standards.

Professional development training. The third theme was professional development or training. When asked specifically about professional development offered teachers indicated that the district required trainings were conducted by subject area track. Teachers were instructed to select a single track at the start of the academic year and receive training in that track for the remainder of the year. The learning tracks available were ELA, Math, Science, and Social Studies. Unless ELA was the selected track no professional learning in literacy was provided. A one-time, 45-minute training was received on Ready Reading when it was first implemented but no follow-up or coaching had been received since. The format of trainings as described by participants consists of another teacher presenting a power point and then allowing for some collaboration.

Teachers suggest that a better plan was needed in the district for professional development offerings. Reform for professional learning sessions, as described by teachers, should include the speaker introducing skill or resource, modeling, and then having teachers discuss how to implement in classroom with follow up later. An actual model lesson in a classroom would be effective. This level of coaching and support would need to be a district initiative in the form of a traditional PLC, professional learning community, where teachers not only engage in discourse at their school but with teachers from other schools so teachers can learn from one another.

Post-Interviews

Post- interviews with teachers in Cohort A revealed that they found the professional development beneficial and relevant. As a result of the interviews themes of time, resources, and professional development and training were identified.

Time. Time was recognized as a theme resulting from multiple teachers' responses regarding the implementation process. This theme was recurrent among the four participants who implemented task cards in Cohort A. Tasks cards provided several opportunities for teachers to assess skills mastery through the use of a checklist. Teachers indicated one factor with time involved making the time to analyze student achievement captured in checklists after providing instruction using the tasks. Other teachers added that the scheduling requirements and restrictions of current literacy block impeded teachers in implementing tasks thoroughly and with fidelity.

In an effort to integrate the professional learning within the instructional block teachers stated that they used it as an intervention since they felt the Ready Reading was required. Some teachers who had not implemented tasks said they just needed more time for implementation due

to class changes and other organizational requirements that prohibited applying the tool within the scope of the study. The teachers who had not implemented the tasks indicated strong desire and intention to introduce the tasks within the third quarter of the current academic year.

Teachers interviewed also communicated a desire to spend more time using the ELA task cards introduced in the professional learning because of the value added in augmenting student achievement.

Resources. Another theme was resources, as noted by the teacher responses. The tasks, as noted by teachers, lay out verbatim what to say, what to do, and how to assess student progress, for example, what questions to ask, how to address misconceptions, how to support English Language Learners, and how to extend engagement. Teachers communicated a sense of excitement at the availability of such a comprehensive resource and displeasure at not knowing it had been available the entire year until shared until the professional development session.

Teachers felt a greater sense of empowerment because they indicated the layout of the tasks allowed them to apply its structure and questioning techniques to other material not included within the tasks. They also shared experiencing greater confidence in questioning and eliciting critical thinking from students. Additional benefits noted by teachers were versatility in use, reassurance that the material was rigorous, standards aligned, and structured to meet the demands of state assessments.

Teachers stated that the resource reduced the amount of time and energy sent searching for intervention materials. All the materials necessary to complete each task was provided and the lesson plan format was laid out so that anyone could pick it up and feel confident in providing effective literacy instruction. The organization of the tasks on

the state website made it easy to find passages that corresponded with the skills being taught and assessed. Teachers also noted that the passages and tasks were engaging enough to keep students focused throughout the entire lesson.

Teachers stated the most beneficial aspect of the professional development was simply finding out about this resource. They said they were unaware the resource existed prior to training. Teachers found the versatility of the tool beneficial because it allowed them to integrate the lessons provided in the tasks into small and whole group instruction, as well as, to use for intervention and remediation. Teachers noted they wished the tasks had the ability to be used to track data points for struggling learners who might need to be referred to the school's problem solving team who are responsible for exceptional student education (ESE) services.

Additionally, the focused skill component of the tasks was found by teachers to be helpful because students could be grouped by ability to receive additional targeted instructional support. Teachers noted the high quality of the texts included in the tasks. Multiple passages are provided to give students multiple opportunities to achieve skills mastery. The ability to evaluate the types of texts within the task cards helped teachers better recognize the types of passages they should be selecting for student use.

Professional development training. The final theme that emerged from teacher interviews was professional development and training. Ongoing coaching was integrated into the learning cycle but was not really necessary because the training was very thorough. None of the participants from Cohort A requested additional support outside that which was built into the study. The school based academic coach indicated those

teachers who implemented the task cards within the learning environment did so appropriately based on her observations.

Those who sought additional support shared that although they had not found time to engage in additional research on the tasks independently they felt confident that the school based academic coach could provide guidance regarding questions they had. They indicated a sense of assurance from the support received regarding the tasks.

Teachers also indicated from interviews that they felt the professional development session was quite helpful in reassuring them that implementing the use of the tasks within the learning environment would be simple because they thought when they first saw it that the tasks were too complicated. Following the training teachers' confidence was increased because they commented that they felt it could be done and it was not as complex as they had thought.

Teachers also indicated a desire to receive additional professional development. They noted that some training sessions are beneficial while others are not depending on the individual or group providing the learning and if it is relevant to what teachers are doing in the classroom. According to respondents the learning would need to be well-planned and interactive. The focus of such development sessions in literacy should be focused on intervention since they indicated that limited resources had been provided by the district to choose from when it came to tools for remediating skills for students struggling in literacy and reading comprehension. Some teachers specified training on the most effective way to integrate literacy tools and resources, in general, within the literacy block would be beneficial, noting that finding time to implement the tasks with fidelity

was problematic. Below is a summary of the themes uncovered from interviews during the study (Table 9).

Table 9

Summary of Themes

Themes	Associated concepts	Categories Found In
Instruction Strategy Use	Inconsistent, diverse, lack of training, questions ability to select appropriate materials	All
Time	Locating resources tedious, limited for implementation and instruction, allotted for training and support, saved with tasks, improved self-efficacy, spent training	All
Resources	Inconsistency, unavailable, timely searches, sporadic, some standards alignment, incomplete materials, limited achievement measures, consistent, available, structured, versatile, skills focused, standards aligned, rigorous, complete materials, reliable achievement measures, increased self-efficacy, limited	All
Professional Development Training	Inconsistency, irrelevant, not able to implement, limited Needs to be consistent, relevant, interactive, implementable, complete, provide resources, diverse	All

Self-Efficacy

Self-efficacy for this study was measured using Woolfolk-Hoy’s Teacher Self Efficacy Scale (2001). The scale is designed to determine teachers’ personal perceptions regarding ability based on responses to 24 questions using a Likert scale format anchored by 5 (a great deal) and 1 (none at all). Each component includes eight of the 24 questions with no overlaps. Questions target three particular areas of self-efficacy: student engagement, instructional strategies, and classroom management. Student engagement involves the degree to which teachers feel they can motivate students with low interest and performance in reading. The ability of teachers to implement alternative strategies within the learning environment is instructional strategies.

Student management is how well teachers are able to calm disruptive or distracting behaviors during the literacy block (Ross & Bruce, 2007).

Teacher perspectives were measured for all 13 participants prior to professional development with an additional administration of the self-efficacy scale for Cohort A following the professional learning session. An analysis of pre- and post- self-efficacy scales (Figure 6) was conducted for respondents within Cohort A who received training to determine if any changes existed in perception of personal self-efficacy between the first and second administrations. Results of the initial self-efficacy scale for all 13 respondents, Cohorts A and B, revealed that 9 of the 13 participants demonstrated confidence in student engagement. In the construct of instructional strategy 9 out of 13 felt confident in their abilities to effectively provide literacy and reading comprehension instruction. Classroom management showed the highest levels of efficacy with 11 of the 13 teachers stating they felt sure of their ability to effectively manage the learning environment.

Self-efficacy for Cohort A was measured pre- and post- professional development and rendered changes in teacher perception regarding student engagement at a rate of 14% from 64% to 78%. Individual teacher responses indicated the increase of 14% equated to one person feeling more confident in this area. Instructional strategies recognized a 14% increase as well shifting upwards from 68% to 82%. This indicated a change in the self-efficacy perception of one teacher regarding instructional strategies. Classroom management attitudes changed positively by 9% shifting from 77% to 86%, which point to a slight change in perception for one participant in the area of maintaining control of the learning environment.

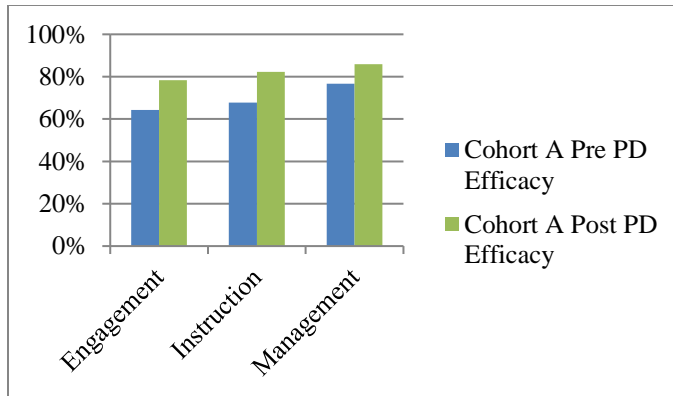


Figure 4. Bar graph showing difference in perceptions of self-efficacy between administration of pre- and post- self-efficacy assessments for participants from Cohort A.

Professional Development Survey Results

Results from the professional development survey revealed all respondents found the learning experience beneficial, the activities promoted an interactive and collaborative climate, objectives were clear, the facilitator was knowledgeable and credible, time was allocated for discussion, trainer was responsive to needs of participants, the material provided was useful to the learning environment, and teachers would implement learning within the classroom. The majority of the participants, 86%, felt that the activities were differentiated enough for individual learners, with 14% indicating a moderate feeling of differentiation. Results for empowerment to take on a leadership role within the professional community was recorded at 71% communicating a great deal, 14% a moderate amount, and 14% experiencing little to no confidence in this area at all.

Discussion of the Results in Relation to the Literature

The results of the study support the need for relevant, engaging literary focused professional development opportunities for teachers that expand pedagogy, knowledge, and confidence (Gulamhussein, 2013; Timperley, 2008) as a means of increasing teachers' sense of self-efficacy. Although the study did not conclusively demonstrate a relationship between

professional development and student achievement, some factors of the study did begin to establish a connection between professional development in literacy and reading comprehension and effective reading instruction, which produces enhanced comprehension for students (McNamara, 2007).

Participants in Cohort A found the training extremely beneficial to them because it provided increased mastery experiences from which to draw (Devos, 2010; Harrison, Dymoke & Pell, 2006; Sundli, 2007; Hobson, Ashby, Malderez, & Tomlinson, 2009; Killeavy & Moloney, 2010; Mitchell & Logue, 2009; Oberski & McNally, 2007). Mastery experiences enhance teachers' sense of self-efficacy because they have positive outcomes to refer back to as a means of demonstrating ability (Bandura, 1997; Goddard, Hoy, & Woolfolk-Hoy, 2004; Ross, 1998; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

As teachers engaged in the implementation process following the task cards professional development session teachers' self-efficacy was enhanced. Prior to completing the professional development training, participants had high senses of self-efficacy based on Woolfolk Hoy's Sense of Efficacy Survey (2001). Yet, the subsequent self-efficacy survey revealed a more realistic picture of present confidence levels in the area of classroom management. The post-self-efficacy results in classroom management revealed decreased senses of self-efficacy on three of the eight questions. This demonstrated teachers' ability to reflect on and evaluate current practices against the information presented during the professional development session (Avalos, 2011; Richter, Kunter, Klusmann, Ludtke, & Baumert, 2011; Ross & Bruce, 2007; Tschannen-Moran & McMaster, 2009).

In the absence of a stated instructional model for the school or district, participants acknowledged feelings of inadequacy in implementing appropriate instructional practices and

identifying adequate materials for instruction based solely on teachers' expertise. Teachers indicated this left them questioning whether or not the materials being used were sufficient for effective literacy instruction that would lead to student achievement (Cantrell & Hughes, 2008; Greenleaf, Schoenbach, Cziko, & Mueller, 2001; Vescio, Ross, & Adams, 2008).

The learning environment provided for participants met the requirements of Bandura's Social Learning Theory (1977) in that the session was delivered using modeling. Data captured from the teachers' professional development survey indicated that respondents agreed that the learning was effective and useful because the session was relevant, interactive, collaborative, and modeled for those in attendance (DeMonte, 2013; Grusec, 1992; Gulamhussein, 2013; McLeod, 2010; Smith & Berge, 2009). As teachers were given opportunities to interact and question within the learning process greater acquisition of knowledge was achieved (Avalos, 2011), which promotes implementation and changes to instructional practice (Lee, 2008; Puchner & Taylor, 2006). A large component of the training involved collaboration, which is considered a best practice in professional development pedagogy (Dufour, 2004) because it is based on participants sharing their strengths and experiences with the group as a source of learning (Commitante, 2014; Duncombe & Armour, 2004; Quint, 2011; Tschannen-Moran & McMaster, 2009).

Interview responses revealed changes in the perception of teachers' level of self-efficacy after the professional development training was improved because they felt more equipped to provide effective literacy instruction. The task cards provided materials sorted by grade and aligned with state standards for student achievement. The tools provided step-by-step instructions with detailed and guided questions to measure student achievement. Passages were included which allowed teachers to focus more time on planning engaging instruction rather than

spending time searching for literary resources. Teachers also found the tasks aided in identifying and meeting individual student achievement needs because tasks could be used in a variety of ways and settings (National Institute of Child Health and Human Development, 2000; Pardo, 2004; Pressley, 2002; Trabasso & Bouchard, 2002).

The continued use of alternative resources, i.e. the Ready Reading book, in conjunction with task cards provided during the professional development training may have contributed to inconsistency in strategy use and affected study findings. One of the four teachers who implemented tasks cards within the literacy block struggled to balance using tasks cards and the Ready Reading material effectively within the time allotted. Another used the task cards as an intervention, when time permitted, while continuing to use Ready Reading in small group. A third switched to task card use in small group and intervention with Ready Reading used for whole group instruction. The last of the four intermingled both resources using the task card structure with the Ready Reading passages. Therefore, teachers who implemented task cards consistently demonstrated higher gains in student achievement. Previous literature posited that consistency and accuracy in strategy use would have the greatest impact in improving student achievement (Al Otaiba, Folsom, Wanzek, Greulich, Waesche, Schatschneider, & Connor, 2016; Connor, Morrison, Fishman, Crowe, Al Otaiba, & Schatschneider, 2013; Guthrie & Wigfield, 1997; McCrudden, Perkins, & Putney, 2005; Oka & Paris, 1987; Stevens, 1988).

However, the results did indicate an overall increase in teachers' sense of self-efficacy because they disclosed they felt more confident in providing literacy instruction following the session than before (DeMonte, 2013; Gulamhussein, 2013). This was attributed, by respondents, to having credible, versatile, relevant, and structured materials for use that did not require excessive time to locate. Furthermore, task cards provided a rubric for the types of resources

needed to meet the demands of the state standards and served as a measure for teachers to evaluate their current abilities in order to make needed adjustments to instructional practices.

During interviews teachers used the terms instructional strategies and instructional models interchangeably. Instructional strategies are the techniques used by learners to work independently to solve problems and complete assignments (Mayer, 1996; McCrudden, Perkins, & Putney, 2005; Parker, 2006; Pinnell & Fountas, 2010), whereas instructional models are the structure and delivery method of the lesson itself, (for example, lecture or direct teaching and “I do, we do, you do”) (Colorado Department of Education, 2017).

Although the results of this study did not substantiate definitively the effects of professional development on student achievement the research supports the conclusion that professional development has a positive outcome on student achievement (Commitante, 2014; Quint 2011). Additionally, this study continues the discussion regarding the effects of professional development on teachers’ sense of self-efficacy because teachers received ongoing and relevant training that met the needs of participants, which led to altered instructional practices (Avalos, 2011; Commitante, 2014; Gulamhussein, 2013; Quint, 2011; Timperley, 2008).

Limitations

A few limitations existed with this study that highlighted the need for further research. First, the low sample size and single district used for the study reduced the ability to generalize the results. Secondly, results were reliant upon the truthfulness of respondents when completing surveys and interviews. Therefore, if participants were not forthcoming in their responses the data examined and subsequently the study outcomes would be skewed, possibly rendering the study invalid. Lastly, lack of fidelity in implementation and use of task cards within the

instructional block adversely impacted study results. The inconsistency in use was the result of teachers continuing to use the district provided Ready Reading book. Most respondents reported using the two resources in tandem. As a result, it is not possible to definitively state that the professional learning positively affected student achievement although those findings are supported by previous research which stated professional development is how student learning is improved and that quality instruction has the greatest on student achievement (Keane, 2017; Ross & Bruce, 2007; Rucker, 2018).

Implication of the Results for Practice, Policy, and Theory

Practical implications for this study address the need for additional research-based instructional resources and tools and more relevant, useful, and ongoing professional development in literacy for teachers to continuously improve teachers' self-efficacy. Researchers reported teachers with high self-efficacy demonstrate certain characteristics to be effective, such as having insight, using exceptional works of literature, integrating reading and writing, teaching reading comprehension from a variety of texts, using good assessment strategies, and providing individualized instruction to name a few (Abernathy-Dyer et al., 2013; Block & Pressley, 2002; Collins & Cheek, 1999; Darling –Hammond, 1996; Fountas & Pinnell, 2010).

To achieve the highest levels of self-efficacy teachers should engage in professional development, which is designed to improve teachers' attitudes, beliefs, and perceptions regarding their ability to promote student learning (Ross & Bruce, 2007). Teachers' sense of self-efficacy remains an important factor in student achievement because high-quality instruction has been proven to have the greatest impact on student learning gains (Rucker, 2018). For teachers' self-efficacy to continue to improve they should be afforded opportunities to participate in professional development trainings that are ongoing, differentiated, active and inquiry-based

with modeling, and innovative utilizing technology; otherwise, learning will have little to no impact on instructional practice or student achievement (Darling-Hammond, 2009; Keane, 2017).

Teachers within the study indicated they were unaware that the task cards resource existed and had been available since the beginning of the academic year. This lack of awareness prevented them from providing individualized support for students over the course of several months at the beginning of the year. Had teachers known the tasks were available and received training on how to implement and use them at the start of the academic year students' achievement score might have been higher.

Additionally, participants stated that they lacked a real textbook which is why they searched for hours to locate instructional materials that were appropriate for instruction. Therefore, it might prove advantageous if a standardized instructional model were adapted at the school along with a standards aligned curriculum, book, and supplemental materials. Doing so could elicit changes in instructional practices, bring about instructional consistency, and foster learning gains. Otherwise educators continue using a variety of inconsistent instructional materials hoping they are appropriate to achieve learning gains. Such a change, however, would require professional development first (Abernathy-Dyer et al., 2013).

Current professional development of educators continues to utilize the traditional model of lecture learning, although research supports a more engaging, collaborative and interactive model that seeks to address all learning modalities (DeMonte, 2013; Gulamhussein, 2013; Hunzicker, 2011; Quint, 2011; Timperley, 2008). As communicated by study participants, this type of learning is not beneficial. Providing professional development opportunities that include ongoing support for newly introduced and implemented materials and resources, modeled

lessons, and district wide collaborations were noted as areas of opportunity for teachers with a desire to improve their instructional practice. Accomplishing such professional development plans would call for a great deal of planning on the front end and coaching on the back end.

Planning would need to be comprehensive and focused on allowing participants to take ownership of the learning process by building understanding (Rucker, 2018). This could be done through the use of technology discussions and collaboration, hands-on activities, modeling and role plays, and other interactive activities that would allow teachers to identify the relevance and significance of the learning, and understand how the learning might ultimately impact student achievement (Darling-Hammond, 2009; Rucker, 2018).

This research also indicates the need for instruction to increase teacher level of self-efficacy to enhance teachers' personal perceptions regarding their impact on student learning and achievement as a means to improve capacity and produce more confident teachers (Abernathy-Dyer et al., 2013; Guskey, 2010; Ross & Bruce, 2007). As teachers' sense of self-efficacy improves from participating in professional development, the dynamics of classroom interactions and instruction change leading to greater mastery experiences for teachers and learning gains for students (Abernathy-Dyer et al., 2013). Studies such as those conducted by Abernathy-Dyer et al., Guskey, and Ross & Bruce also aid in establishing a framework for professional development theories and policies that will serve to produce highly qualified teachers (Abernathy-Dyer et al., 2013; Guskey, 2010; Ross & Bruce, 2007).

Recommendations for Further Research

Qualitative research results, other than theory or process, are not generalizable. Therefore, it is recommended that future research be conducted quantitatively with a larger sample size to improve the ability to transfer results. Doing so would provide greater insights

into the attitudes and behaviors of teachers regarding the effects of professional development on teachers' perceptions of self-efficacy. Targeting a larger population using only the task cards presented during the professional development session could also provide more conclusive results because the learning would be targeted and could be implemented within different learning environments to evaluate trends in student achievement.

Additionally, broadening the scope of the study to be conducted over the course of one academic year with the study initiating with the completion of a self-efficacy survey during pre-service and concluding with another at the end of the year would possibly provide more informative data. This would afford researchers a more comprehensive glimpse into teachers' perceptions regarding self-efficacy in reading and the implications on instructional practice. Also, expanding the timeframe of the study to measure growth over the course of at least one academic school year and identifying a more standardized means of measuring student achievement could potentially improve validity. Allowing more time for training and implementation might also provide participants more opportunities for coaching and usage and to work through any struggles with integration.

Lastly, the recommendation is made to conduct an in-depth qualitative study of the effects of professional development on self-efficacy as it is directly related to student achievement. Ongoing professional development and coaching throughout the year in literacy and comprehension could inform changes to perceptions over an extended period of time. Future research would also include distinguishing between literacy instructional models and instructional strategies.

Conclusion

Teachers who participated in the literacy and reading comprehension professional development found the time invested learning about the task cards resource was well spent as evidenced by professional development survey results. The session left them seeking more opportunities to engage in training that offered similar resources for supporting student achievement. One challenge to professional learning was having two competing resources available and knowing how to effectively integrate each within the literacy block. Therefore, identifying one specific instructional model at a time with ongoing training provided to teachers might be beneficial to eliminate the guesswork and inconsistency in instruction. The more confident teachers become within themselves and the materials they utilize the more changes are made to instructional practices within the learning environment and student achievement is increased.

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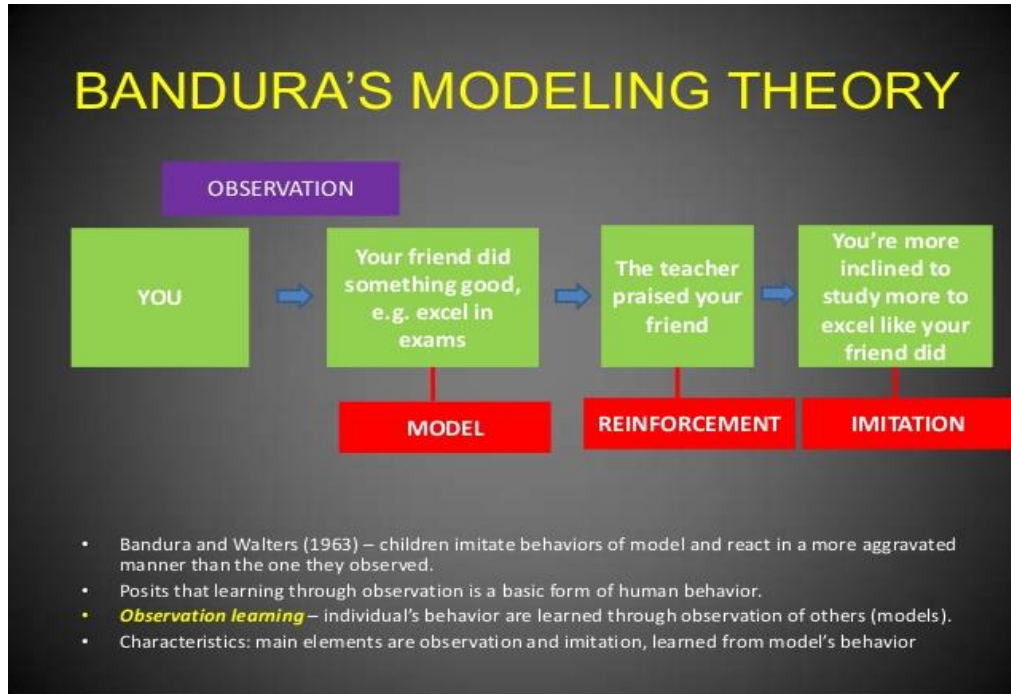
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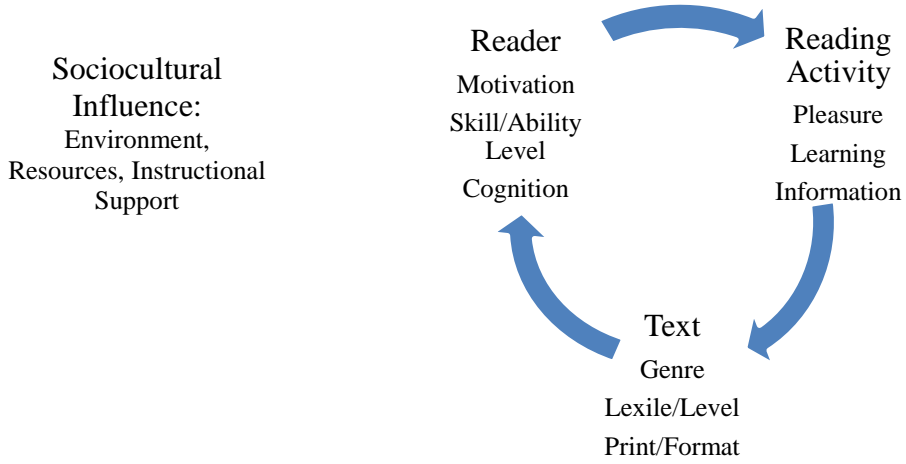
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Appendix A: Bandura's Modeling Theory (Social Learning Theory)



(Adapted from Balan, 2014)

Appendix B: Reading Relationships



(Adapted from RAND Study Group, 2002)

Appendix C: Task Cards: Standards

Small Group

Literary

Task RL 1.1

Task RL 1.2

Task RL 1.3

Task RL 2.4

Task RL 2.5

Task RL 2.6

Task RL 3.7

Task RL 3.9

Informational

Task RI 1.1

Task RI 1.2

Task RI 1.3

Task RI 2.4

Task RI 2.5

Task RI 2.6

Task RI 3.7

LAFS.RL.1.1.Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
LAFS.RL.1.2 Determine a theme of the story, drama, or poem from details in the text, including how characters in the story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
LAFS.RL.1.3 Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
LAFS.RL.2.4 Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
LAFS.RL.2.5 Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
LAFS.5.RL.2.6 Describe how a narrator’s or speaker’s point of view influences how events are described.
LAFS.5. RL.3.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
LAFS.5.RL.3.9 Compare and contrast stories in the same genre on their approaches to similar themes and topics.

Appendix D: Task Cards: Contents

Task Title	Main Idea & Key Details
Grade	4
Standards	Common Core Standard example- Determine the main idea of a text and explain how it is supported by key details; summarize the text.
Description	Students will read an informational text to identify the main idea. Students will identify the key details that support the main idea and explain how the key details presented by the author support the main idea.
Materials	<ul style="list-style-type: none"> • Passage identified from the reading text • Main Idea and Key Details Graphic Organizer (one copy per student) • Teacher Checklist for Main Idea and Key Details
Considerations for Planning-detailed strategies are provided as well for students who have not gained the previous knowledge as required.	<ul style="list-style-type: none"> • Students have prior knowledge of how to identify main idea in an informational text. • Students have prior knowledge of how to identify key supporting details in an informational text. • Students have prior knowledge of and experience with explaining how key details in an informational text support the main idea. • Students have prior knowledge of how to record information from independently read texts utilizing a graphic organizer. • Teacher may replace the attached passage with another grade level passage in curriculum. <p>English Language Learner Considerations: Assist ELLs in making connections between other toads or frogs (or any similar animal) and the text. The vocabulary can be discussed with students using various methods to infer meaning – for instance: using visuals or other multi-media, identifying positive cognates in students’ language, acting out the events in the story, etc.</p>

Source: Adapted from the State Department of Education Teacher Toolbox, 2018

Level 3: The student demonstrates complete understanding determining the main idea a text and explaining how it is supported by key details.

Misconception/Error	Questions for Eliciting Thinking	Instructional Implications
<p>With self-correction or teacher prompting, the student is able to:</p> <ul style="list-style-type: none"> • Identify the main idea of the text, • Identify three key details that support the main idea; and • Explain how the key details identified in the text support the main idea 	<p>“What key words in the text help you to identify the main idea?”</p> <p>“How does this statement in the text support the writer’s main point?”</p> <p>”How do these key details in the text support the main idea?”</p>	<p>Provide another on-level text and have students identify the main idea and key details and explain how the key details support the main idea.</p> <p>Provide students with the opportunity to practice identifying the key words and phrases often used in text to support the main idea.</p> <p>Provide another on-level text and have students identify the key details that support the main idea and explain how these key details support the main idea.</p> <p>Provide other resources for students to use to practice citing textual evidence that support the main idea and explaining how the identified details support the main idea.</p>

Source: Adapted from the State Department of Education Teacher Toolbox, 2018

Appendix E: Woolfolk-Hoy Teacher Self Efficacy Survey Questions (Woolfolk-Hoy, 2001)

1. How much can you do to get through to the most difficult students?
2. How much can you do to help your students think critically?
3. How much can you do to control disruptive behavior in the classroom?
4. How much can you do to motivate students who show low interest in school work?
5. To what extent can you make your expectations clear about student behaviors?
6. How much can you do to get students to believe they can do well in school work?
7. How well can you respond to difficult questions from your students?
8. How well can you establish routines to keep activities running smoothly?
9. How much can you do to help your students value learning?
10. How much can you gauge student comprehension of what you have taught?
11. To what extent can you craft good questions for students?
12. How much can you do to foster student creativity?
13. How much can you do to get children to follow classroom rules?
14. How much can you do to improve the understanding of a student who is failing?
15. How much can you do to calm a student who is disruptive or noisy?
16. How well can you establish a classroom management system with each group of students?
17. How much can you do to adjust your lessons to the proper level for individual students?
18. How much can you use a variety of assessment strategies?
19. How well can you keep a few problem students from ruining an entire lesson?
20. To what extent can you provide an alternative explanation or example when students are confused?

21. How well can you respond to defiant students?
22. How much can you assist families in helping their children do well in school?
23. How well can you implement alternative strategies in your classroom?
24. How well can you provide appropriate challenges for very capable students?

Appendix F: Teacher Self-Efficacy Results

	Pre- PD Teacher Self-Efficacy Scale		Post- PD Teacher Self-Efficacy Scale	
	A Great Deal/A Lot (Pre-)	A Moderate Amount/A Little (Pre-)	A Great Deal/A Lot (Post-)	A Moderate Amount/A Little (Post-)
Q1	71%	29%	57%	43%
Q2	43%	57%	100%	
Q3	71%	29%	86%	14%
Q4	86%	14%	71%	29%
Q5	100%		100%	
Q6	71%	29%	86%	14%
Q7	71%	29%	86%	14%
Q8	86%	14%	100%	
Q9	71%	29%	71%	29%
Q10	86%	14%	86%	14%
Q11	86%	14%	86%	14%
Q12	57%	43%	100%	
Q13	71%	29%	86%	14%
Q14	58%	42%	71%	29%
Q15	58%	42%	86%	14%
Q16	100%		86%	14%
Q17	71%	29%	86%	14%
Q18	43%	57%	57%	43%
Q19	71%	29%	57%	43%
Q20	71%	29%	100%	
Q21	57%	43%	86%	14%
Q22	57%	43%	71%	29%
Q23	57%	43%	71%	29%
Q24	57%	43%	86%	14%

Appendix: G: Self-Efficacy Survey Question Analysis

Question	Analysis
1. How much can you do to get through to the most difficult students?	shift from great to moderate by 14% (1 person)
2. How much can you do to help your students think critically?	shift to 100%
3. How much can you do to control disruptive behavior in the classroom?	split shift with the two moderate going one to great and other to little
4. How much can you do to motivate students who show low interest in school work?	one shifted from great to moderate
5. To what extent can you make your expectations clear about student behaviors?	remained the same
6. How much can you do to get students to believe they can do well in school work?	increased by one from moderate to great
7. How well can you respond to difficult questions from your students?	increased by one from moderate to great
8. How well can you establish routines to keep activities running smoothly?	shift to 100%
9. How much can you do to help your students value learning?	remained same
10. How much can you gauge student comprehension of what you have taught?	remained same
11. To what extent can you craft good questions for students?	remained same
12. How much can you do to foster student creativity?	shift to 100%
13. How much can you do to get children to follow classroom rules?	increased by one from moderate to great
14. How much can you do to improve the understanding of a student who is failing?	increased by one from moderate to great
15. How much can you do to calm a student who is disruptive or noisy?	increased by one from moderate to great
16. How well can you establish a classroom management system with each group of students?	decreased by one from great to little
17. How much can you do to adjust your lessons to the proper level for individual students?	increased by one from moderate to great
18. How much can you use a variety of assessment strategies?	increased by one from moderate to great and little to moderate
19. How well can you keep a few problem students from ruining an entire lesson?	decreased by one from great to moderate and little
20. To what extent can you provide an alternative explanation or example when students are confused?	shift to 100%

Appendix G (Continued)

Question	Analysis
21. How well can you respond to defiant students?	increased by two from moderate to great
22. How much can you assist families in helping their children do well in school?	increased by one from little to moderate and moderate to great
23. How well can you implement alternative strategies in your classroom?	increased by one from moderate to great
24. How well can you provide appropriate challenges for very capable students?	increased by one from little to moderate and by two from moderate to great

Appendix H: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously- researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work (Continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University-Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*.

MICHELLE MACLIN
Digital Signature

Michelle Maclin
Name (Typed)

05/21/2018
Date