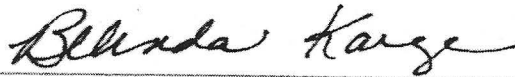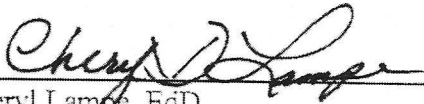ACCEPTANCE

This dissertation. PROFESSIONAL DEVELOPMENT TOOLS TO ENHANCE THE ABILITIES OF VETERAN TEACHERS IN PRE-K THROUGH EIGHTH GRADES, was prepared under the direction of the candidate's Dissertation Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree of Doctor of Education in the School of Education. Concordia University Irvine.
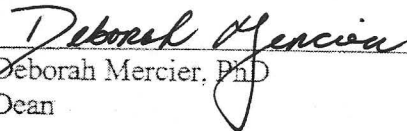
Belinda Dunnick Karge, PhD
Committee Chair

Cheryl Lampe, EdD
Committee Member

Deborah Collins, EdD
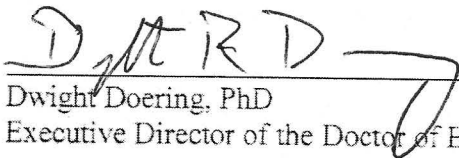Committee Member

The Dissertation Committee, the Dean, and Executive Director of the Doctor of Education Program of the School of Education, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty.

Deborah Mercier, PhD
Dean

Dwight Doering, PhD
Executive Director of the Doctor of Education Program

COPYRIGHT PERMISSION AGREEMENT
Concordia University Library
1530 Concordia West
Irvine, CA 92612
www.cui.edu/library
librarian@cui.edu

I, Salvatrice Kuykendall warrant that I have the authority to act on any copyright related matters for the work, PROFESSIONAL DEVELOPMENT TOOLS TO ENHANCE THE ABILITIES OF VETERAN TEACHERS IN PRE-K THROUGH EIGHTH GRADES, dated December 16, 2017, to be included in the Concordia University Library repository, and as such have the right to grant permission to digitize, republish and use the said work in all media now known or hereafter devised.

I grant to the Concordia University Library the nonexclusive worldwide rights to digitize, publish, exhibit, preserve, and use the work in any way that furthers the educational, research and public service purposes of the Concordia University.

This Agreement shall be governed by and interpreted in accordance with the laws of the State of California. This Agreement expresses the complete understanding of the parties with respect to the subject matter and supersedes all prior representations and understandings.

ACCESS RESTRICTIONS
My electronic thesis or dissertation can be made accessible via the Concordia University Library repository with the following status (select one):

☑ Option 1: Provide open access to my electronic thesis or dissertation on the internet

☐ Option 2: Place an embargo on access to my electronic thesis or dissertation for a given period from date of submission (select one):
☐ 6 months ☐ 1 year ☐ 3 years

Permission Granted By:

Salvatrice Domenica Kuykendall
Candidate's Name (as appears in academic records)

Signature of Candidate

3904 Newton St. Torrance, CA 90505
Address

11|17|17
Date

salvatrice.kuykendall@eagles.cui.edu
Phone Number or E-mail Address

Irvine, CA
City/State/Zip

VITA

Salvatrice Domenica Kuykendall

ADDRESS   1530 Concordia West
                                 Irvine, CA 92612
                                 Salvatricedk@gmail.com

EDUCATION
    EdD   2017   Concordia University Irvine
                                 Educational Leadership
    MA   2002   Loyola Marymount University, Los Angeles
                                 Counseling
    BA   2001   California Polytechnic University, Pomona
                                 Multiple Subject, Minor Mathematics

PROFESSIONAL EXPERIENCE
    2016 - Present   Principal
                                 Rancho Vista Elementary School
                                 Palos Verdes Unified School District
    2015 - 2016   Administrative Negotiations Team
                                 Palos Verdes Unified School District
    2013 - 2016   Assistant Principal
                                 Palos Verdes Intermediate School
                                 Palos Verdes Unified School District
    2012 - 2013   Dean of Students
                                 Rancho Del Mar Continuation High School
                                 Palos Verdes Unified School District
    2011 - 2012   Counselor
                                 Ridgecrest Intermediate School
                                 Palos Verdes Unified School District
                                 Teacher
    2009-2011   Ridgecrest Intermediate School
                                 Palos Verdes Unified School District
    2006-2009   Dean of Students
                                 Dana Middle School
                                 Wiseburn School District
    2002-2006   Teacher
                                 Ridgecrest Intermediate School
                                 Palos Verdes Unified School District
    2000-2002   Teacher
                                 South El Monte High School
                                 El Monte High School District

PROFESSIONAL DEVELOPMENT TOOLS TO ENHANCE THE ABILITIES OF VETERAN
TEACHERS IN PRE-K THROUGH EIGHTH GRADES

by

Salvatrice Domenica Kuykendall

A Dissertation

Presented in Partial Fulfillment of
Requirements for the
Degree of
Doctor of Education
in
Educational Leadership
December 16, 2017

School of Education
Concordia University Irvine

ABSTRACT

Professional Development Tools to Enhance the Abilities of Veteran Teachers in Pre-K Through Eighth Grades examined the variety of professional development tools available to veteran educators. The quasi-experimental study allowed veteran teachers to participate in a pretest survey consisting of questions about teachers' desire for continued professional development, learning preferences, tools and ideas, and demographic information. An intervention in the form of PowerPoint was then presented to the veteran teachers outlining the adult learning theory and a variety of professional development tools. After the intervention a posttest was conducted and compared using an ANOVA.

The results in the study indicate that while there is not a significant difference in the pretest and posttest following the intervention, veteran teachers are interested in learning, growing, and enhancing their classroom. Veteran teachers would like to be actively involved in the planning and expansion of professional development opportunities and would like to learn from their peers in how to make their classroom more effective. Veteran teachers also feel that their peers can learn from watching them teach in the classroom and would like to use the peer coaching model and Instructional Rounds to be able to learn from their colleagues. Veteran teachers feel that tools such as observations and feedback are helpful in the classroom and would like to learn more about student engagement, instructional strategies, classroom management, differentiation techniques, Instructional Rounds, growth mindset, and subject specific programs.

The results from the teachers' survey were given to administrators for feedback about how to use the responses to develop effective professional development opportunities in schools. The interview results from the administrators revealed that teacher observation and collaboration are optimal for teachers to grow professionally. The one-on-one interviews also resulted in the

overwhelming need to include teachers in the creation of professional development

opportunities.

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGMENTS

I would like to express my appreciation to my committee chair Dr. Belinda Karge, who has continually supported me throughout my dissertation process. Dr. Karge's patience, motivation, and immense knowledge in professional development has guided me in completing my dissertation. I could not have imagined a better mentor for my doctoral study.

I would like to thank my committee members, Dr. Cheryl Lampe and Dr. Deborah Collins, whose expertise in the field of education, helped evolve my dissertation. Their comments, encouragement, and insightful suggestions assisted me in shaping and expanding my study.

I thank my fellow cohort members for their encouragement, stimulating discussion, and meaningful work together these last three years. I could not have picked a better group of amazing and inspirational women to work with.

Last but not least, I would like to thank my family, my children and husband, for supporting me throughout my coursework and study. My family encouraged me and cheered me through the doctoral process and allowed me to enjoy my study every step of the way.

CHAPTER 1: INTRODUCTION

As teachers gain experience, professional development opportunities help foster further growth in their professions. "Educators must understand the concepts in processing professional development and what it means to education" (Quattlebaum, 2012, p. 1). Typically, professional development opportunities include in-service training or a series of workshops. These opportunities for active learning and content knowledge allow teachers to explore beyond their experience in the classroom (Quattlebaum, 2012). Globally, the field of educators is searching for successful strategies for professional development for teachers (Antoniou, 2013; Belay, 2016; Costa & Garmston, 2014; Gemeda & Tynjälä, 2015; Nishimura, 2014; Terantino & Hoyt, 2014).

Long lasting and quality professional development experiences are minimal for veteran teachers (Antoniou, 2013; Bayar, 2014; Cheng, 2011; Day & Gu, 2007; DuFour & Fullan, 2013 Holm & Kaiander, 2015; Kelly & Cherkowski, 2015; Onchwari & Keengwe, 2008; Quattlebaum, 2012). When professional development does occur, it is mostly in the form of a one-time workshop with no follow-up. New teachers may participate in the Beginning Teacher Support and Assessment Program (BTSA). BTSA is a California professional development tool "designed to support the professional development of newly-credentialed, beginning teachers ("Beginning Teacher Support and Assessment Induction," 2017, p. 1)

Schools today focus on mentoring and coaching tools for novice teachers ("Beginning Teacher Support and Assessment Induction," 2017). Professional development models for new teachers are relatively common among most school districts. In looking at professional development opportunities for teachers who have been teaching more than five years, many districts do not have plans or opportunities in place (Croft & Coggshell, 2010; Danaher, Price, & Kluth, 2009; Day & Gu, 2009; Nishimura, 2014; Terantino & Hoyt, 2014). In turn, veteran

teachers can become stagnant in their practices and become more resistant to change (Zimmerman, 2006). Also, teachers may not perceive the need for changes in their practice after being in the profession for a prolonged period of time (Zimmerman, 2006).

There is a misconception regarding professional development that when teachers have enough experience teaching, they no longer need to update or improve upon their practice (Day & Gu, 2009; Zimmerman, 2006). All teachers need continuous professional development and reflection to occur to keep veteran teachers effective with the changing generations. New teachers come in with a plethora of knowledge and tools when coming out of their credential program. While the new teachers lack the experience in the classroom, they often surpass the veteran teachers in student engagement, differentiated instruction, and overall approach to teaching (Day & Gu, 2009).

The researcher has had the opportunity to work at the elementary and middle school level as a teacher, counselor, and administrator. The researcher has had hundreds of hours of observations in a variety of classrooms, including those of veteran teachers. The researcher has experienced the need of professional development for veteran teachers separate from those of new teachers so they continue to learn and evolve with the changing demands in education.

This dissertation study examined the variety of professional development tools available to veteran teachers. The study was based on secondary research, surveys of veteran teachers at an elementary and middle school, and interviews of elementary and middle school administrators. The first chapter of the dissertation presents the study's background, purpose, problem statement, significance, term definitions, research questions, and hypothesis. The chapter concludes with limitations, delimitations, and the organization of the study.

Purpose of the Study

Professional development for veteran teachers is important as teachers grow in depth and breadth of teaching pedagogy. Novice teachers learn the basics of teaching, including classroom management, organization tools, and learning how to teach to the class. Once a teacher learns the "basics" of teaching, they are ready to move on to become an effective educator in their classroom. The purpose of this research study was to analyze a variety of professional development tools, as measured by surveys and multiple interviews, that are considered useful for veteran teachers. The professional development opportunities were examined for academic value in the classroom, deemed relevant for the teacher, transformative for the students, and up to date with what is expected from the state standards. The research gave insight to teachers and administrators about current practices used in the area of teacher professional development.

Problem Statement

School districts continually conduct professional development opportunities for teachers in an attempt to refine education. The problem then becomes the following: what type of professional development is offered to veteran teachers to help keep their skills sharpened? The researcher, along with other education scholars, has experienced a lack of professional development geared toward veteran teachers (Antoniou, 2013; Cross, 2012; Wei & Wei, 2009).

Educators entering the profession are given a variety of tools to help them with their beginning years as a teacher, including the optional Beginning Teacher Support and Assessment Induction program offered by the state of California ("Beginning Teacher Support and Assessment Induction," 2017). Tools provided by schools and districts to novice teachers include professional development in the form of coaching and mentoring. Once a teacher has been teaching for more than five years, opportunities for professional development strongly

decline. The question then becomes, why is professional development important for veteran teachers, and what forms of professional development will benefit teachers who have been teaching for five or more years?

When addressing the needs of veteran teachers, it is important to note that the needs are different than those of novice teachers. The research indicates that veteran teachers are more likely to teach the same grade level for more than ten years (Antoniou, 2013). The veteran teacher then relies on materials and practices that are familiar. During the 1996 - 1997 school year California passed the 20:1 class-size reduction initiative in kindergarten through third grade (California Department of Education [CDE], n.d.). During this time many veteran teachers moved to primary grades to teach kindergarten through third grades because of the smaller class sizes. Unfortunately, as a result, the increase of inexperienced and not fully certified teachers had a diminishing effect on the positive outcome of the Class-Size Reduction Program (Jepsen & Rivkin, 2002). The teachers would not have been hired in the absence of class-size reduction; therefore, they are a lower quality in comparison to other teachers (Jepsen & Rivkin, 2002). Professional development for the current veteran teachers is important to help raise the ability level of those hired.

Significance of the Study

The significance of the study provides veteran teachers and administrators information about the desires and needs of veteran teachers to grow in the classroom. This information can then be used to improve the quality of teaching for veteran teachers. Having worked in a variety of schools and school districts, the researcher has seen the need and lack of professional development for veteran teachers. The researcher has also experienced that some of the veteran population of educators as less likely to embrace new ideas in curriculum changes. This research

study provides school districts with research needed to relay the significant importance of professional development for veteran teachers. Also, the research may indirectly improve the quality of teaching. In schools, districts will be able to examine the variety of professional development strategies available, veteran teachers' attitude and willingness for professional development, and the transformation of teaching as measured by teachers and administrators in the district.

Definition of Terms

The following definition of terms defines special terms used in the study. Many of these terms are used in education, but it is important to clarify the terms in discussing the survey.

BTSA: Beginning Teacher Support and Assessment, an induction support for California teachers in their first two years of teaching after receiving a California credential.

Peer-coaching: Teachers provide one another with feedback about their teaching.

Cognitive Coaching: A coaching model that requires the coach to be non-judgmental, encourage reflective practice and guide self-directed learning.

Content-Focused Coaching (CFC): A coaching approach, which is said to improve instruction and learning in schools, which have high teacher mobility (Matsumura, Garnier, Correnti, Junker, & Bickel, 2010).

The Continuous Professional Development (CPD) Program: A program to improve teacher effectiveness in the Ethiopian schools.

Classroom Assessment Scoring System (CLASS): A tool to review areas of emotional climate and instructional support.

Novice Teacher: A teacher who has been teaching for four years or less.

Veteran Teacher: A teacher who has been teaching for five or more years.

Instructional Rounds: A teacher-led process in which teachers go into other teacher's classrooms and observe their teaching.

Andragogy: The theory and practice of educating adults.

Professional Development: Formal and informal learning opportunities available to educators. The term can be used interchangeably with *Professional Learning*.

Professional Learning: An interchangeable term with *Professional Development* to include the formal and informal learning opportunities available to educators.

Theoretical Framework

Pivotal in adult learning, and still recognized today, Knowles (1995) identified six core adult learning principles of andragogy which incorporate adult learning theories about "how adults learn, adults' need to know, self-concept, experiences, readiness to learn, orientation to learning, and motivation" (p. 22). Knowles incorporated the theory of andragogy assuming four basic assumptions which include the notion that adults bring a variety of experiences that should be used for leading change and that adults have a need to be able to direct themselves in their readiness to learn (Knowles, 1995). Similarly, adults' learning needs are related to being able to apply what they have learned and solve real life problems (Knowles, 1995).

Along with andragogy, transformative learning allows adults to derive meaning from their own experiences (Mezirow, 1994). Mezirow (1995) reported that the theory of transformative learning is important to adult learning and claimed that adults justify their beliefs by experience. These transformative learning experiences can be seen in a mentoring relationship, which allows both the mentor and mentee to collaborate and find solutions that lead

to change (Klinge, 2015). In other words, transformative learning involves a structural shift that alters the way adults interpret their experiences.

Like Knowles (1995) and Mezirow (1994), Mirci and Hensley (2011) discussed a necessary shift in existing practice to provoke change among adults. Change strategies for adults are based on the assumption that the adult wants to change (Bayar, 2014; Cheng, 2011; Mirci & Hensley, 2011; Toll, 2005; Tweedell, 2000). The rational-empirical model assumes that the adult will change when provided with evidence that, in fact, they need to change (Mirci & Hensley, 2011). Change, in this case, has to be in the self-interest of the person making the change. The power-coercive change strategy is used when change is mandated. For example, the No Child Left Behind Act is a federal law passed to accomplish standards-based education reform. In the case of federal change, a change strategy is necessary. Another strategy, called the normative-re-educative strategy, follows the notion that adults are multifaceted and alteration is connected to the uniqueness of the persons involved in the change (Antoniou, 2013; Wei et al., 2009; Fuller & Brown, 1975; Merriam, 2008; Mirci & Hensley, 2011). This change includes a shift in the attitudes, values, and beliefs, which have occurred during professional development opportunities.

With the growing emphasis on student performance and change in state standards, teachers are left with the task of learning new content while raising achievement for all students. A variety of professional development opportunities is needed to help teachers with the task of the rapidly changing state and federal mandates. This research study focused on veteran teachers and their specific needs for professional learning in TK through Grade 8 in the school setting. There are some unique needs, which will be addressed in this study, that veteran teachers have that require a distinctive approach to professional development (Antoniou, 2013; Day, 2007; Day

& Gu, 2009; Fuller & Brown, 1975). Specifically, veteran teachers may not be motivated to learn new skills after they have been teaching for more than five years. This research study examined the variety of professional development strategies along with attention to the desires of veteran teachers about their professional development.

Research Questions

1. What are the tools and coaching models for professional development for veteran teachers?

2. How can veteran teachers be supported to grow professionally?

Hypothesis

The researcher's hypothesis was that veteran teachers do want to grow professionally and would like more coaching and guidance in the area of professional development. The researcher also predicted that among the variety of professional development strategies, ongoing coaching will result in the willingness of teachers to learn different strategies and, in turn, be the most beneficial form of professional development.

Limitations of the Study

The limitations of this study included the use of veteran teachers and principals from a middle- to high- socioeconomic school district. The results from the study may not be generalizable to all school districts.

Delimitations of the Study

The delimitations utilized by the researcher in this study were determined by the researcher's desire to gain a better understanding of the attitudes of veteran teachers towards professional development and the tools veteran teachers need to be able to grow professionally. To gain the perspectives of the teachers and principals the researcher used only the views of

veteran teachers and principals. The survey was conducted at one elementary and one middle school in the same affluent school district through convenience sampling. The results may not represent all schools in the school district.

Assumptions

This study included the following assumptions: (a) Veteran teachers require more specialized professional development activities; (b) Coaching is a valuable professional development tool for veteran teachers; (c) Allowing veteran teachers to observe other teachers in the classroom serves as a valuable tool for veteran teachers; (d) Involving veteran teachers in the professional development plan creates willingness to participate among the veteran teachers.

Organization of the Study

Chapter 1 included a thorough discussion of the introduction to the topic, the purpose, problem statement, the significance of the study, research questions, definition of terms, the theoretical framework, limitations and delimitations of the study, and assumptions of the study.

Chapter 2 presented a review of the literature, which included the literature review, research questions, teacher professional development, veteran teachers, review of the different models of professional development, professional development for coaches, and a summary. Chapter 3 described the methodology used for this research study. It included the settings and participants, sampling procedures, instrumentation, description of the intervention, data collection procedures, data analysis, reliability, validity, survey analysis, plan to address ethical issues and summary.

Chapter 4 presented the study's findings including the pretest and posttest survey, findings of the qualitative research, and summary. Chapter 5 provided the discussion and results including an introduction, discussion of findings, answer to research questions, implications for

practice, recommendations for further research conclusions and summary (Lunenberg & Irby, 2008).

Summary

Chapter 1 of the study, *Professional Development Tools to Enhance the Abilities of Veteran Teachers in Pre-K through Eighth Grades*, examined the importance and significance of professional development among veteran teachers. The adult learning theory of andragogy was reviewed and helped explain how adult learning is unique. Included in the learning theory is the assumption that adults need to have a desire for change before any shift in practice can occur. The questions addressed in the study have been listed and will give insight to the tools and coaching models used for professional development among veteran teachers. The study will provide teachers and administrators with the tools which can help teachers be supported in their learning and to grow professionally. Limitations, delimitations, and assumptions are addressed in this chapter to assist the reader in understanding the scope of the study. Lastly, the organization for future chapters has been addressed.

CHAPTER 2: REVIEW OF LITERATURE

Adult education philosophies have roots in the work of John Dewey (Tweedell, 2000). Dewey was invited to work at the University of Chicago to help develop the university's Department of Education and learn about the impact its educational structures had on learning (Dewey, 1963). Dewey formed the theory that all individuals have the capacity to learn throughout their entire lives. This philosophy inspired many theorists, including Malcolm Knowles (1995), who premised that andragogy is rooted in adult experience which then becomes a resource for adult learning (Tweedell, 2000).

In addition to the work of Dewey (1963) and Knowles (1995), Merriam (2008) reported that adult learning is not a single theory but is a "complex phenomenon that can never be reduced to a single, simple explanation" (p. 94). Merriam (2008) theorized that adult learning is multi-dimensional and occurs in various contexts. The theory is similar to that of Knowles' (1995) claims that adult learning incorporates multiple dimensions, which includes the "need to know, self- concept, experience, and readiness to learn" (p. 22). Learning involves the body, emotions, spirit, and mind to allow for memory and information processing (Merriam, 2008). Because of the interaction with people from all over the world, adults have a newly found perspective about learning and what constitutes knowledge (Knowles, 1995; Merriam, 2008). Recognizing that adult learning is more than just a cognitive process enhances our understanding of which instructional strategies foster learning in veteran teachers. Veteran teachers should connect their experiences to include the "holistic phenomenon" in incorporating creative modes necessary for the learning of adults (Merriam, 2008, p. 98)

The theories from Knowles (1995) and Merriam (2008) help us understand the development of teachers, particularly veteran teachers. In relating the adult learning theories of

Knowles and Merriam, Fuller and Brown (1975) reported that understanding the life space of a

teacher can shed light on the motivation and perspective of teachers. Fuller and Brown (1975)

also reported that novice teachers turn to veteran teachers for assistance in their classroom.

Therefore, professional development for veteran teachers is important as it also relates to the

assistance they give novice teachers (Fuller & Brown, 1975). When teachers begin to instruct

they come in with knowledge of what they received during their pre-service teaching programs

and then teach each other how to teach (Fuller & Brown, 1975). After teachers have been in the

classroom, professional development becomes almost nonexistent in many school districts.

Many researchers reported that creating an investment in teacher professional development is a

strategy for promoting mastery in teachers and students (Antoniou, 2013; "Beginning Teacher

Support and Assessment Induction," 2017; Cheng, 2011; Day & Gu, 2009; Nishimura, 2014,

Reinke, Stormont, Herman, & Newcomer, 2014; Senge et. al, 2012; Zan & Donegan-Ritter,

2014). The learning community of teachers benefits when teachers as a whole achieve

professional development.

    The purpose of investing in professional development for teachers in general is to

heighten their professional competency (Cheng, 2011). Allowing teachers to work together

collectively enhances competency while creating the knowledge necessary for employing any

new curriculum adopted by the state or school district (Cheng, 2011). Collective learning is

achieved by social interactions among a group of teachers, and it is found that teacher learning is

more effective when collaboration occurs with other professional educators (Cheng, 2011; Fuller

& Brown, 1975). With the Common Core State Standards having been introduced across the

country, collective learning and school growth are contingent upon one another. Cheng (2011)

constructed a teacher collective learning model while discussing management strategies to

support the model. Cheng also revealed that administrators need to review existing teacher professional development programs to ensure the personal mastery of teaching. Teachers should be involved in the training, and the school management should exercise a shared and supportive leadership role. Working together with the teacher allows teachers to become motivated in their learning and allows for multiple outcomes for schools (Cheng, 2011; Fuller & Brown, 1975). Teachers "sticking together" is essential for teacher survival as reported by Fuller and Brown (p. 31) also fulfills the teachers' multi-dimensional learning needs (Knowles, 1995; Merriam, 2008).

Allowing teachers to take part in their learning, as discussed by Cheng (2011) and Fuller and Brown (1975) related to the notion that synergy, the "behavior of a whole system is greater than the sum of its parts," is important for educational institutions (Gerber, 1991, p. 4). Thus, creating meaningful professional development opportunities for veteran teachers is crucial. Bayar's (2014) findings have shown that professional development must be organized based on teachers' needs, and it requires ongoing and not one-time activities. In education, far too often we see districts that do not have the resources to train teachers within the school context. Many times teachers are sent to one-day seminars as a means of professional development (Wei et al., 2009). It has been recognized that these one-day seminars are not enough to produce change within a school or district (Bayar, 2014; Wei et al., 2009). Additionally, it is salient that ongoing professional development occurs. Effective professional development should match teacher and school needs, involve teachers in the design and planning of the activities, allow for active participation of teachers, allow for long-term engagement, and provide high-quality facilitators and instructors (Bayar, 2014). It is also important when creating professional development activities to understand that adult learners will respond best to real-life situation and problems (Cheng, 2011). When teachers' professional development does not correlate with their school

setting, as related to the core adult learning principals, teachers are more reluctant to accept the information being presented (Knowles, 1995).

In their classic research study, Fuller, Parsons, and Watkins (1973) argued that veteran teachers have considerably different professional development needs than novice teachers. Similar to Fuller and Brown's (1975) observations, the importance of teacher life space indicated that veteran teachers had different necessities than a novice teacher regarding developing professionally (Fuller, Parsons, & Watkins, 1973). According to Fuller, Parsons, and Watkins, while a novice teacher may require training on classroom management, grading, and organization of the class, most veteran teachers have mastered those skills and are more concerned with benefitting students. Veteran teachers are unique in that they are a discerning population. The teachers also put a value on time and energy spent in the classroom and are more concerned about pupil benefit (Fuller et al., 1973). A veteran teacher may become complacent in what they have been teaching and may feel that there is not a need for change. Therefore, the veteran teacher must connect prior learning to the new principles being introduced in the professional development activity (Fuller & Brown, 1975; Fuller et al., 1973; Merriam, 2008).

The importance of teachers' voices is imperative while developing effective professional development opportunities (Bayar, 2014). Bayar (2014) argued that the "voices of teachers are of the upmost importance when deciding on the key components of professional development" since the teachers are the ones participating in the activities and are responsible for applying what they learned into effective classroom teaching (p. 320). Therefore, teacher perspectives and input is a crucial component of professional development programs in schools. Bayar confirmed Mezirow's (1994) theory of transformative learning in that teachers feel they do not have

effective professional development because the activities are mostly unrelated to what teachers really require. In Bayar's study, teachers reported that professional development is more effective when it takes into account teacher input and specific school needs.

Fullan and Knight (2011) reported that coaches can also be a crucial agent of change in a school. Coaches can be used as a means for professional development for veteran teachers. As also mentioned by Cheng (2011), it is essential that the coaches are supported by school principals, or the coaching strategy will not achieve maximum results. Coaches are to work closely with principals to plan goals for improvement. Coaches spend their days "planning lessons with teachers, modeling lessons, observing instruction, facilitating meetings, reviewing student data, and leading the collaboration of student work" (Cheng, 2011, p. 51). Fullan and Knight have stressed the importance of placing coaches in possible situations where they can succeed, which reinforces one of the six core adult learning principals theorized by Knowles (1995). Giving teachers the setting to succeed also includes allowing teachers opportunities to understand school improvement plans and giving them the "right work" (Fullan & Knight, 1995, p. 59).

Coaching models that impact veteran teachers in Pre-K through eighth grades were reviewed in Chapter 2. The coaching method has been seen as a collaborative tool to help teachers reflect on their teaching practices. The focus of this study addresses the variety of tools which can be used to continue to develop veteran teachers professionally, as well as the use of coaching as a tool for transformative teacher professional development. Included in the research are the views of teachers teaching in Pre-K through eighth grade at an elementary and a middle school.

Research Questions

Research questions addressed include:

1. What are the tools and coaching models for professional development for veteran teachers?

2. How can veteran teachers be supported to grow professionally?

The following themes address the review of the literature for this study:

1. Teacher Professional Development

2. Veteran Teachers

3. Review of the different models for teacher professional development

    a. Instructional Rounds and other techniques

    b. Coaching

4. Professional development for coaches

Teacher Professional Development

Teaching professionals are expected in their first years to use the knowledge learned from their pre-service teaching programs as a foundation for educating children in their classrooms (Fuller & Brown, 1975). In 1994, the National Staff Development Council, now called Learning Forward, was organized to develop Standards for Staff Development to support teachers in their profession (Learning Forward, 2011). By 2000, changes in the field of education led to a revised and condensed version of the Standards for Staff Development. In 2011, along with educational reform and development in research, Leaning Forward revised the standards once again to include changes like fewer standards, a more holistic view, and combined content standards. The name Standards for Staff Development also changed to be called Standards for Professional Learning (Learning Forward, 2011).

As teachers continue to grow in their profession they develop more advanced skills in teaching through collective learning and social interactions among their colleagues (Cheng, 2011). Antoniou (2013) conducted a study of 130 teachers who volunteered to participate in a professional development program. Antoniou (2013) discussed the exploration of the five stages of teaching skills. The study demonstrated that years of experience are not significantly associated with the stage of teaching. The only exception to the results were teachers who were in their first five to six years of teaching. This means that teachers who are beyond their fifth year of teaching are in the same stage and produce the same teaching effects as a teacher who is in his or her tenth year of teaching (Antoniou, 2013). One should not assume that all teachers have effective cognitive skills, which means teachers need professional development throughout their careers with the assistance of school management (Antoniou, 2013; Cheng, 2011).

Similar to Antoniou's (2013) study, which correlated the differences in teacher's career stage, the international study conducted by Cordingley et al. (2015) examined teacher stages when provided with professional development opportunities. The study, which was conducted in England, demonstrated that a positive professional learning environment along with sufficient time was most significant in teacher learning (Cordingley et al., 2015). Subject knowledge and general pedagogic knowledge is equally as important when developing a schools' professional development plan. When developing plans, formative assessments so that teachers can see the improvement of their learning is important. Reviewing the learning process and outcomes for students is also crucial (Cordingley et al., 2015). The research recognized the importance of coaches and mentors. The study conducted by Cordingley et al. (2015) suggested that professional development is most effective when teachers receive consistent messages,

differentiated lessons (based on teaching stage), models of effective teaching, and feedback from other teachers and administrators.

Along with using teacher's stage of experience as a marker for professional development, Trotter (2006) described a theory of adult development that focused on age. The theory recognizes that, no matter the age of the adult, learning is lifelong (Dewey, 1963; Trotter, 2006). The theory focuses on the qualitative differences of adult thinking correlating to the adult learner, which can impact professional development programs (Trotter, 2006). The age theory suggests that adults in their late thirties and early forties think more about context and culture while having a greater sense of membership in the community. The adults in the mid-life stage want lasting relationships and work. Professional development programs must take this into consideration to include discussions and reflections from teachers as part of a professional program (Trotter, 2006). The life space of a teacher, as described by Fuller and Brown (1975), includes both the age of the teacher and their career stage. Both age and career stage of the teacher must be taken into consideration when developing a professional development program in a school.

Trotter (2006) argued that adults move through various stages of development and should be allowed to determine the direction of their own professional development. In accordance with the theories from Knowles (1995) and Merriam (2008), teachers will experience greater success if they are allowed to participate in what interests them and what they feel they need to learn (Cheng, 2011; Toll, 2005). The key ingredients for successful adult learning include continuous available supervision and advising, encouragement, support and feedback, and the use of concrete experience (Bayar, 2014; Toll, 2005). Adults need to take part in the planning of their professional development paths during their teaching careers (Bayar, 2014; Toll, 2005).

The work of Fullan and Knight (2011) similarly reflected the work of Cordingley et al. (2015) in acknowledging the importance of coaches and mentors. All of the successful programs also included individualized support, planning, and feedback sessions for teachers to be able to translate what they learned into their own classroom contexts (Cordingley et al., 2015). In the study, the authors noted what is not effective in professional development includes telling teachers what to do or giving teachers materials without the skills or opportunities to learn how it will impact their classrooms. School leaders and teachers alike should work collaboratively for the greatest improvements to occur (Fullan & Knight, 2011). School leaders who create a culture who fosters adult learning create professional learning goals and provide teachers with a variety of approaches so the teachers can explore multiple angles of pedagogy (Cheng, 2011; Cordingley et al., 2015). Cordingley et al. (2015) and Fullan and Knight concluded that the leaders of schools who were most effective became involved in the learning process and simply did not "leave the learning to their teachers" (Cordingley et al., 2015, p. 9).

According to Wei et al. (2009), if we want teachers to possess higher-order thinking skills, along with deep content knowledge, ongoing professional development must occur. In comparison to other nations, the teachers in the United States lack time to utilize the support and training they have received in a collaborative environment (Merriam, 2008). Wei et al. suggested that educators, like other nations, are more satisfied with their positions and stay in the field longer after receiving effective professional development. Teachers need the support of the school system and state departments of education to give high-quality and sustained professional development ranging from 30 to 100 hours in one school year (Wei et al., 2009). Intensive and ongoing professional development needs to be connected to practice. It is also important to focus on the development of specific content (Bayar, 2014; Wei et al., 2009; Gerber, 1991).

Professional development should include the development of strong relationships amongst teachers in a school. Teachers reported that their top priorities were learning more about the content they teach, and receiving adequate training in special education and limited English proficiency students (Wei et al., 2009).

A professional development program should allow teachers to take what they know and learn from working with each other (Senge et al., 2012). Professional development should be training that incorporates "what educators already know and helps them improve on what they can do based on the challenges they face now" (Senge et al., 2012, p. 397). Senge et al. (2012), reported the importance of teachers being able to identify problems which they felt were current. Professional development should include action learning while teaching new skills as a way to bring new insights back to the group for reflection in various contexts (Merriam, 2008).

Similar to the theory of andragogy developed by Knowles (1995), Senge et al. (2012) discussed creating a generative professional development system using five learning disciplines including systems thinking, personal mastery, mental models, shared vision, and team learning. Mental models influence educators to expect more or less from certain students. Mental models are created from the teachers' own experience. According to Senge et al. (2012), mental models can help explain why two teachers may view student learning differently as teachers are paying attention to different details of learning. However, mental models can be expanded by using a coaching model or allowing teachers to collaborate so they can bring assumptions and attitudes to the surface while exploring differences in assumptions about teaching students (Senge et al., 2012).

Along with Senge et al. (2014), Zimmerman (2006) explained that mental models are used in professional development opportunities as a way to understand individual's sense of

context about professional learning (Zimmerman, 2006). Zimmerman suggested that principals

should gain knowledge while understanding readiness, willingness to learn, and have earned a

teachers' trust. As seen by the work of Cheng (2011) and Fuller and Brown (1975), the support

of teachers from the school management team was deemed important. Developing a supportive

culture, which includes involving teachers in the development of professional development

activities and support of influence teachers, will enhance the acquirement of teacher's knowledge

(Cheng, 2011; Zimmerman, 2006). Principals who provide opportunities for "teacher

collaboration and participation in decision making", allows a supportive culture for change and

can promote an environment of risk taking to try newly acquired strategies during professional

development opportunities (Cheng, 2011; Zimmerman, 2006, p. 242).

The importance of mental models, described by Senge et al. (2014) and Zimmerman

(2006), relates to personal mastery because it allows teachers to have a personal vision and

current reality of what is occurring around them. Team learning and staff development should be

synonymous (Senge et al., 2014). When working as a team, teachers are more likely to adopt

new ways of teaching (Cheng, 2011). A shared vision should be included in a staff development

design. Once teachers work together to develop the vision and the direction of the staff

development, teachers are likely to improve and change (Bayar, 2014; Cheng, 2011). In

addition, systems thinking in planning professional development focuses on "building

collaborative relationships and structures for change" (Senge et al., 2014, p. 404). The "systems

thinking process allows people to talk within the system about how they want children to

develop and what supports they may need" (Senge et al., 2014, p. 404).

In Ethiopia, educational reform is at the forefront (Belay, 2016). With reform in

education comes the responsibility of preparing a professional development program to build the

capacity of teaching, which is why the Continuous Professional Development (CPD) Program was created. The CPD Program was first created to improve teacher effectiveness in the Ethiopian schools (Belay, 2016). When schools are to promote the learning of students, it is important that education professionals also continue to learn throughout their careers. This is to say, the learning of administrators is just as important as the learning of teachers (Belay, 2016; Cheng, 2011).

Renewing the depth of teachers' skills through professional development is salient in growing teacher knowledge (Belay, 2016; Wei et al., 2000). Professional development is also essential to implementing any type school reform (Wei et al., 2000). The most powerful professional development activities are those that are relevant to teachers' everyday classrooms and are continuous over a period of time. Effective professional development programs are job-embedded, ongoing, focused on learning and learners, collaborative, reflective in practice, and grounded in adult learning theories (Wei et al., 2000). Mentoring is an important part of the Continuing Professional Development support system and should be shared and emphasize the reciprocated growth of both the mentor and mentee (Wei et al., 2000).

In the Continuing Professional Development support system, Wei et al. (2009) discussed the "one-shot approach" as being a one-day workshop for teachers. This is said to be an ineffective approach to professional development because the attitude of teachers isn't deemed relevant and the workshop is thought to be superficial. In order to sustain any professional learning implementation, professional development needs to be ongoing in a collaborative environment (Learning Forward, 2011). The one-shot approach is seen as a disconnected practice from what particular teachers and schools need. The one-shot approach also fails to acknowledge that teachers are a source of knowledge and need to actively participate in their

professional growth (Wei et al., 2000). As a result of the participation, teachers will be empowered to plan and produce their professional development for maximum change (Cheng, 2011; Wei et al., 2000).

Veteran Teachers

Day (2007) conducted a four-year research (2001- 2006) called the VITALE study which included 300 elementary and secondary teachers. The VITALE study was conducted in 100 schools and explored veteran teachers' work, lives, and effectiveness. Day found that teachers who are more experienced are at a greater risk of diminishing not only in effectiveness but commitment to their career (Day, 2007). According to Day, without colleague support and collaboration, veteran teachers' effectiveness was at risk (Day, 2007). In addition, research indicated that "teachers with a strong commitment and resilience are likely to be more effective than others" in the classroom (Day, 2007, p. 237). Since commitment and resilience is important to the effectiveness of teachers, what contributes to these qualities must also be examined. Day and Gu (2009), similar to Fuller, Parsons, and Watkins (1973) and Fuller and Brown (1975), confirmed that veteran teachers' resilience and commitment were influenced by the phases and identities of their personal lives (Day & Gu, 2009).

Veteran teachers can benefit from collaboration to continue to improve their performance. Without effective professional development, veteran teachers will not continue to grow in their profession (Day & Gu, 2009; Day, 2007; Fuller & Brown, 1975; Fuller et al., 1973). Day and Gu (2009) researched commitment, resilience, and quality retention of the veteran teacher and reexamined their previous VITALE study. The authors further broke down the results to include stages of veteran teachers in relation to their particular struggle. The study examined the professional life phase of veteran teacher with twenty-four to thirty years of

teaching, called Phase 1, and professional life phase with thirty or more years in teaching, referred to as Phase 2. Day and Gu (2009) found that teachers in phase one had trouble adjusting and sustaining motivation while teachers in phase two were losing motivation and had a feeling of detachment and disenchantment. The study concluded that sustaining veteran teachers' sense of commitment, effectiveness, and resilience is a quality retention issue and has profound implications for schools (Day & Gu, 2009). Day and Gu suggested that school leaders attend to the broader personal well-being of staff by "building trust and sustained interaction by raising expectations and continuing the pursuit of standards" (Day & Gu, 2009, p. 454).

As examined by various researchers and authors, professional development programs can include the teachers' stages of teaching (Antoniou, 2013; Day & Gu, 2009; Fuller & Brown, 1975). Teacher professional development should correlate to teacher's progress through "stages of cognition and skills as they construct meaning from experience and training" (Antoniou, 2013, p. 26). The researcher Antoniou (2013) defined three different stages of teacher professional development, which includes the survival and discovery stage, experimentation and consolidation stage, and the mastery and stabilization stage. Veteran teachers fall in the third stage, which suggests that teachers must pass through different periods of development to allow for the teaching of advanced competencies (Antoniou, 2013). Professionals are to first acquire the basic knowledge of teaching and then later develop more advanced knowledge and skills. Veteran teachers have passed through the different growth periods and therefore are ready to advance and extend their teaching practices through continuous professional development (Fuller & Brown, 1975; Antoniou, 2013).

Relevant to the professional development of veteran teachers, the phases of interventions towards teacher professional development can be determined using teacher questionnaires to

collect data (Antoniou, 2013). Antoniou (2013) identified an additional phase, which should be examined when developing professional development opportunities. The phase included incorporating the teacher's development stage in the formation of collaborative groupings. In the professional development study conducted by Antoniou, the study indicated that during the year of no teacher intervention, teachers failed to move to the next developmental stage of teaching. Antoniou (2013) reported that one should not assume that all teachers have effective cognitive skills at any stage, and that it is important to provide teachers with greater competencies in the classroom, there is a need for programs that train the desired skill.

Review of the Different Models for Teacher Professional Development

A variety of models are used as a tool for professional development to continually update teachers. The six core adult learning principals, according to Knowles (1995), was applied to the themes. The models reviewed in this study include Instructional Rounds and other techniques. This study is then broken down into the themes collaboration, coaching, peer observation, and teacher reflection. These different models serve as tools to provide veteran teachers the opportunity to continue to grow in their profession. As Gemeda and Tynjälä (2015) state:

The world is a constant state of change in every aspect. This demands a school system to be responsive and continuously update the capacity of its staff. To this end, professional development programs for teachers are seen to play a vital role, as they provide opportunities for teachers to learn and grow within the profession. (p. 1)

Instructional Rounds and Other Techniques

The use of Instructional Rounds in education is an extension taken from the model of medical rounds used in medical schools and teaching (Terantino & Hoyt, 2014). Schools have recently begun to use the Instructional Rounds model as a means to improve instruction in the

classroom. Instructional Rounds consist of classroom observations in conjunction with a visit preparation and a post-visit debriefing (Terantino & Hoyt, 2014). Instructional Rounds allows teachers to walk into other teacher's classrooms, observe what they are teaching, and embed their learning into a working classroom. Job-embedded professional development, including Instructional Rounds, is an alternative to traditional conference-style professional development (Croft, Coggshall, Dolan, Powers & Killion, 2010). The job-embedded teaching practice allows teachers to connect research and practice with ongoing collaboration with other professionals in the teachers' learning communities. In the Instructional Rounds model teachers are required to be accepting of critical feedback and willing to assist in the growth of all teachers by sharing lesson plans and ideas (Croft et al., 2010). The debriefing session, endorsed by the Instructional Rounds model, allows teachers to identify evidence-based practices and establish learning patterns and predictions about future learning. In the Instructional Rounds model, teachers are allowed to step back and observe the classroom from a different lens. It is important to note that during the debriefing time it is necessary to create a safe space in which the teachers can discuss freely (Terantino & Hoyt, 2014).

The Instructional Rounds model allows teachers to not only learn from other teachers, but to share their knowledge with their colleagues. Teachers who truly have confidence in their teaching have a positive effect on student learning are more willing to introduce change in their own learning (Bruce & Ross, 2008). The Instructional Rounds model also allows for collaboration and coaching among colleagues so the teachers can apply new strategies in their classrooms. It has been found that the Instructional Rounds model has had positive effects during the teaching of mathematics and has also increased teacher perception about their ability to impact student learning (Bruce & Ross, 2008). When a teacher feels the need for instructional

growth and has access to alternate strategies, including professional development, he or she has the means for change (Bruce & Ross, 2008). When a teacher has been given constructive and positive feedback from a peer, the teacher has greater potential to implement and apply more effective teaching strategies in the classroom (Croft et al., 2010).

Peer coaching is a way to create a professional school community to help overcome the isolation that teachers may feel in their classroom (Bruce & Ross, 2008). A study conducted by Bruce and Ross (2008) reviewed a specially designed four-session professional development for teachers. The study included an online self-assessment as well as peer coaching summaries after being observed on three occasions by a peer. The findings showed that teachers changed their practice and increased efficacy with the support of coaching (Bruce & Ross, 2008). The participants in the study, with the guidance of a peer coach, were able to reflect upon their practice (Bruce & Ross, 2008). Peer coaching, along with pedagogical training, increases a positive and effective learning environment for teachers (Bruce & Ross, 2008; Wei, 2000)

Peer coaching includes the element of support and confidence gained by teaching staff (Bruce & Ross, 2008). The Classroom Assessment Scoring System (CLASS) is another tool to review the areas of emotional climate and instructional support (Zan & Donegan-Ritter, 2014). The CLASS tool allows teachers to video record their teaching and works with their coach to evaluate and self-reflect upon their practices. When developing a professional development program, such as the CLASS, activities made up of workshops, peer coaching, and self-reflection allow for improved classroom quality (Zan & Donegan-Ritter, 2014).

Collaboration amongst colleagues, including sharing best practices, has been proven to be effective in improving the quality of teaching in the classroom (Bruce & Ross, 2008; Croft et al., 2010; Danaher, Price & Kluth, 2009; Wei et al., 2009; Fullan & Knight, 2011; Zan & Donegan-

Ritter, 2014). Danaher, Price, and Kluth (2009) report using a three-day fair to display and share best practices as a tool for professional development. The study used a fair to allow teachers to display differentiation techniques and allow teachers to reflect on their own needs as learners (Danaher et al., 2009). Too often teachers return from workshops feeling that the material they were presented was irrelevant or not useful in their classroom (Wei et al., 2009; Danaher et al., 2009). Using a fair, such as the one described from a school in Chicago, allows teachers to both teach their colleagues and learn how to improve strategies that they were already using. The school in Chicago has now made the fair a "ritual and celebration" that has helped teachers, and the broader community, encourage collaboration and learn from each other (Danaher et al., 2009).

When ongoing professional development opportunities at the school site have been ineffective for particular teachers, many California school districts use the Peer Assistance and Review (PAR) program as a professional development tool ("A User's Guide to Peer Assistance and Review", n.d.). The PAR program offers support by providing an experienced mentor to help guide the teacher and improve teacher quality. The administrators and unions work together to help "professionalize teachers" by allowing mentor teachers to teach and evaluate their colleagues ("A User's Guide to Peer Assistance and Review," n.d., p. 1). In San Juan, "teachers are referred to the PAR panel if a principal's evaluation of the teacher includes two or more unsatisfactory ratings on five state standards" ("A User's Guide to Peer Assistance and Review," n.d.). This practice helps ensure that teachers who are struggling receive the assistance that they need to be most successful as a teacher. Unfortunately, teachers who are not struggling do not qualify to participate in the program and cannot use it as a professional development tool ("A User's Guide to Peer Assistance and Review," n.d., p. 1). The model of using mentors can allow

teachers the opportunity for guided collaboration while learning strategies from other professionals. Allowing teachers to work together, take what they know, and learn from each other, is optimal for teacher development (Senge et al., 2012).

TechMath is a professional development program for math and science teachers that offers collaborations amongst colleges, businesses, and schools to promote Science, Technology, Engineering, and Mathematics (STEM) careers in rural northeastern North Carolina (Miles, Van Tryon & Mensah, 2015). The professional development model incorporates problem-based learning (PBL) and is a hands-on learning tool for teachers while learning about the STEM concepts. In relation to TechMath, research has found that professional development models allow teachers to use essential job-embedded training practices to connect practice with collaboration which can increase teacher quality (Croft et al., 2010). The model consists of three to five lessons addressing solutions to real-world business problems and is then piloted in the participating teacher's classrooms with students. The qualitative study conducted on the PBL program consisted of a total of 33 teachers in two cohorts. The study found that collaboration and learning from business and University partners to be beneficial to teachers (Miles, Van Tryon & Mensah, 2015). Teachers in the PBL study reported to having gained "valuable information, resources and relationships to support their teaching and student learning by engaging in real-world problems" (Miles et al., 2015, p. 6). While looking at programs, such as guidance from other teachers, it is important to allow sufficient time for collaboration so teachers can translate what was learned to their classroom (Cordingley et al., 2015). While the program was found to be effective, teachers reported that they required additional time to create lessons, with the guidance from the business partners and University, to complete their PBL model in their classrooms (Mile et al., 2015).

Professional learning communities (PLC's) is a means of collaborative and continual professional development for schools and districts (DuFour & Fullan, 2013). "PLC's can play a central role in dramatically improving the overall performance of schools, the engagement of students, and the sense of efficacy and job satisfaction of educators" (DuFour & Fullan, 2013, p. 4). PLC's build the individual educator as well as the collective capacity of the group. PLC's are educators formed into relevant groups who then work together towards instructional improvement or a common goal. In PLC's and any professional development opportunity collaboration time is critical (Bruce & Ross, 2008; Croft et al., 2010; Wei et al., 2009; Fullan & Knight, 2011; Zan & Donegan-Ritter, 2014). In the PLC model, during teacher's collaborative time, achievement data is examined to inform and improve the teachers' instruction (DuFour & Fullan, 2013). DuFour and Fullan (2013) found that continual professional development in the form of PLC's has the benefit of being job-embedded, engaging people in the work, is collective, and is aligned with the system's goals. PLC's allow for a model of ongoing coaching to help build the capacity of both teachers and leaders. DuFour and Fullan (2013) piloted a program at a school, who at the end of the first full year of implementation, showed a significant increase in both mathematics and reading achievement at every grade level and subgroup.

Creating professional learning communities (PLC's) is a model used for a variety of professional development programs (DuFour & Fullan, 2013). Holm and Kajander (2015) studied two teachers over a two-year period in an in-depth study to examine the growth of teachers who participated in a professional learning community (PLC). Teachers who were in the PLC felt "insight, knowledge, and support" from taking part in the professional learning group meetings and opportunities to try new things in their classroom (Holm & Kajander, 2015, p. 264). The PLC model allowed for changes and growth while given the opportunity to analyze

questions and beliefs about their teaching practices (DuFour & Fullan; Holm & Kajander). The teachers used in the PLC study by Holm and Kajander demonstrated growth over the two-year period about their initial beliefs and thoughts about their teaching capacity.

Kelly and Cherkowski (2015) examined a professional development initiative, using a PLC model, called Changing Results for Young Readers. The district in the study funded release time for teachers to participate in seven professional learning community meetings throughout the school year. Teachers documented their experiences and changes as being successful throughout the year including increased student achievement (Kelly & Cherkowski, 2015). While teachers may have expressed discomfort in the professional learning model at first, professional learning communities (PLC's) can create a sense of personal and peer accountability amongst teacher learning (DuFour & Fullan, 2013; Kelly & Cherkowski, 2015).

In education, the topics of co-teaching and job-embedded professional growth opportunities have been examined by many researchers (Cook & Friend, 1995; Honigsfeld & Dove, 2010; Shaffer & Thomas-Brown, 2015). Co-teaching establishes collaborative relationships while allowing teachers to develop professionally (Honigsfeld & Dove, 2010; Shaffer & Thomas-Brown, 2015). Shaffer and Thomas-Brown examined in depth professional growth opportunities for general education teachers through co-teaching and job-embedded professional development. The research from Shaffer and Thomas-Brown theorized the Co-Teaching Professional Development Approach (CoPD) as a professional development program for veteran teachers. The CoPD approach is the "pedagogy in which a veteran special education teacher provides daily professional development training to a general education social studies teacher" (Shaffer & Thomas-Brown, 2015, p. 1). Co-teaching enables teachers to work collaboratively and learn from one another while allowing them to build in their teaching skills

(Honigsfeld & Dove, 2010; Shaffer & Thomas-Brown, 2015). While co-teaching is effective when teaching a variety of learners, the CoPD model examined the growth of a co-teaching model in a general education classroom co-taught with a special education teacher. In the CoPD model teachers can then the share the knowledge of the subject-specific content being taught to special education teachers. Over time, the general education teacher should be able to independently implement some of the pedagogy and strategies learned (Shaffer & Thomas-Brown, 2015). Data collected in the co-teaching models through interviews, conversations, and self-reports found that teamwork and receptiveness among the two teachers are critical to the success of the CoPD model (Cook & Friend, 1995; Honigsfeld & Dove, 2010; Shaffer & Thomas-Brown, 2015). The co-teaching model is an effective tool in the professional development of teachers as it allows for both teachers to build the pedagogy skills while increasing the subject specific knowledge needed for the growth of students in the class (Honigsfeld & Dove, 2010; Shaffer & Thomas-Brown, 2015).

Observing teachers teach in a co-teaching or PLC model can bring about positive changes in the professional development of a teacher. Being able to observe oneself when teaching can also have a positive effect on one's teaching. (Knight, 2014). Knight studied the use of video cameras in the classroom at the Kansas City Coaching Project at the University of Kansas Center for Research on Learning. Knight (2014) conducted more than 50 interviews with teachers, administrators, and instructional coaches who are already using video cameras as a way to improve teaching. Knight found that when teachers' professionalism is respected, video cameras can have a positive effect on teaching. The teacher observed in the study was a reading specialist teacher and an instructional coach who wanted to improve her class but didn't know how. The project allowed her to record the class, watch the video recorded, video independently, then

discuss areas for improvement with an instructional coach. Both the reading specialist and instructional coach developed a goal, made changes, and the goal was easily surpassed. As a result, the teacher and coach were able to watch the video, identify an area of need together, and discussed changes. Both the teacher and coach were involved in the process, which allowed for positive changes and increased the capacity of the teacher (Knight, 2014).

The use of video cameras, according to Knight (2014), allowed teachers to recognize effective teaching practices and can help teachers and coaches use the video as a part of the coaching process. Adding a video camera while coaching allows both the coach and teacher to take a look at the displayed teaching practice from an outside lens. Knight suggested using video with a team of teachers in professional learning communities (PLC's) to share positive classroom teaching with the team. A video gives a clear picture of reality and a goal, which is important while coaching for professional growth (Knight, 2014). While it is important not to use video cameras to damage teacher morale or decrease positive change, Knight suggested six guidelines for success when using cameras as a professional development tool. The guidelines include making sure to ensure a psychologically safe environment, make participation a choice, focus on intrinsic motivation, establish boundaries, walk to talk, and go slow to go fast (Knight, 2014).

The use of cameras allows teachers to have a clear picture of what their teaching looks like so goals can be created. Knight (2014) reported that teaching is an all-encompassing task and it may be difficult to truly take a step back and reflect on what is occurring at every moment in the classroom. Most teachers do not know what it looks like when they teach and using video is a great way to see a clear picture of reality. Knight reported that the use of video prompts teachers to reflect upon their practice while learning from their colleagues.

Knight et al. (2015) reviewed coaching as an instructional tool. A teacher, Jewell, used the coaching cycle when collaborating with a teacher in her district. Jewell recorded one of the teacher's lessons and shared the video with her. After watching the video separately, some insights regarding classroom management and engagement was recognized. The video showed that students were off task because they didn't know what to do. The pair created a checklist for expectations and then Jewell modeled the lesson in the classroom. The coaching helped both Jewell and the other teacher teach more effectively which led to better student learning. The instructional coaching cycle included three components including identify, learn, and improve. Once the reality is identified, by video, a checklist is created and improvement is made with monitored progress toward a specific goal.

Ponte and Twomsey (2016) conducted a study in which novice teachers were paired with veteran teachers as a professional development practice. The novice teachers attended a practicum seminar that was collaboratively taught by mentor teachers at their school campus. The study focused on the benefits to the mentors when paired with a novice teacher. It was made clear in the study that mentoring led veteran teachers to grow professionally when given the opportunity to interact with universal faculty (Ponte & Twomsey, 2016). Mentoring opens the door for veteran teachers to view new ideas in the classrooms as well as view new perspectives about teaching (Ponte & Twomsey, 2016). Ponte and Twomsey recognized that when veteran teachers are paired with novice teachers, the veteran teacher gains a substantial benefit from the overall mentoring experience. Mentor benefits have been seen in the areas of "professional competency, reflective practice, renewal elevated sense of self, appreciation of collegial interactions and leadership skills" (Ponte & Twomsey, 2016, p. 21). Lopez-Real and Kwan (2005) discussed that when veteran teachers are paired with a mentor to novice teachers, the

quality teaching of the mentor teachers improves. In addition, Simpson, Hastings, and Hill (2007) reported that the new ideas received from novice teachers regarding curriculum and teaching allow the veteran teachers to re-examine their practices in teaching and possibly adopt the new skills.

Teaching can sometimes lead to a feeling of isolation. It is easy as a teacher to keep to oneself while planning, grading, and trying to keep up with the workload. Allowing teachers the time and opportunity for collaboration can have many benefits. When mentor teachers work with novice teachers, the encounters offer a deeper appreciation of the benefits of collaboration (Ponte & Twomsey, 2016). The process of mentor training oneself can build mentors' capacity for leadership and allows them to grow as they observe a variety of classrooms. Mentoring allows veteran teachers the opportunity to evaluate themselves and give themselves a sense of fulfillment while giving back to their profession (Ponte & Twomsey, 2016). Allowing teachers the ability to observe what other schools are doing contributes to professional advancement for mentors (Ponte & Twomsey, 2016). It is important to note, from the results of the study, that veteran teachers felt they could go back to their schools and instill change where needed, again breaking that sense of isolation (Ponte & Twomsey, 2016).

Coaching

Historically, coaching is seen as a way to improve teaching skills of teachers (Bruce & Ross, 2008; Costa & Garmston, 2015; Cox, 2015; Cross, 2012; Fullan & Knight, 2011; Hall & McKeen, 1991; Lloyd & Modlin, 2012; Toll, 2005). Peer coaching is a way for learners to be engaged in the study of teaching that sustains a community of learners. Hall and McKeen (1999) conducted a study to specifically collect data about the influence of peer coaching. When using peer-coaching strategies, teachers are permitted and encouraged to observe and consult with each

other (Bruce & Ross, 2008; Costa & Garmston, 2015; Cox, 2015; Cross, 2012; Fullan & Knight, 2011; Hall & McKeen, 1991; Lloyd & Modlin, 2012; Toll, 2005). Hall and McKeen (1991) reported that "training is required to implement and sustain peer coaching in a school system" (p. 316). Peer coaching, along with training, creates a collegial environment for teachers to help support their learning and their knowledge of the teaching strategies (Bruce & Ross, 2008; Costa & Garmston, 2015; Cox, 2015; Cross, 2012; Fullan & Knight, 2011; Hall & McKeen, 1991; Lloyd & Modlin, 2012; Toll, 2005).

Investing in teacher development should be embedded in the teachers' daily work through "joint planning, study groups, peer coaching and research" (Onchwari and Keengwe, 2008, p. 21). Teacher development that is embedded into everyday work allows access to the latest knowledge about teaching and learning (Croft et al., 2010). Anytime there is a change in organizations, such as a learning organization, resistance may occur and the use of joint planning can ease that resistance (Onchwari & Keengwe, 2008). Using the mentor-coaching model helps teachers identify positive practices so that teachers are more open to trying them.

Costa and Garmston (2015) discussed the essential qualities of a job-embedded coach to be effective in guiding other teachers. As mentioned previously, coaches not only need to be able to work with a variety of personalities and learning styles, they also need to be able to meet a teacher at their stage of their teaching development (Costa & Garmston, 2015). In preparing coaches to mentor teachers, a coach must learn how to plan conversations including the purpose of a lesson and evaluation of personal learning (Costa & Garmston, 2015). A coach must also be able to guide reflective conversations and ask open-ended questions to offer supportive feedback (Costa & Garmston, 2015). Costa and Garmston described five competencies of coaching which include process paraphrasing as a communication tool, constructed questioning, probing for

specificity, wait time, and collecting and presenting data objectively. The authors compare the cognitive coaching process to the Socratic dialogue (Costa & Garmston, 2015).

Mezirow's (1994) transformative learning theory relates to adult learning and coaching (Cox, 2015). Cox (2015) compared the adults' need to make meaningful perspectives as a way for them to understand their own experiences. To develop a teacher's goals and beliefs, a transformation may be supported with the use of a coach (Cox, 2015). Coaches can help facilitate the phases of personal transformation including self-examination, critical assessment of assumptions, planning a course of action, and reintegrating new perspectives (Cox, 2015). Coaches can help provide modeling in the classroom and new perspectives and opportunities for the veteran teacher (Fullan & Knight, 2011; Hall & McKeen, 1999; Bruce & Ross, 2008). Cox reported that challenge is important when deciding the course of action in transformation. The role of the coach is to provide an increased understanding and encouragement of the learning process (Cox, 2015). Critical reflection is an important phase, as described by Mezirow, and can be provided through coaching (Cox, 2015). Coaching can allow teachers to gain awareness of their current practices or habit in a safe, yet challenging, environment. The coach can then encourage and support the process of perspective change, which may be challenging (Cox, 2015). The one-on-one relationship that is built between the veteran teacher and the coach can help create paradigm shifts in their own classrooms (Cox, 2015). It is important to note, in the adult learning context, that the coach and teacher are "attuned to the learner's agenda, and not the curriculum-based or institutional agenda" so that the coach is allowed to listen and allow for open questioning (Cox, 2015, p. 36).

Along with Shaffer and Thomas-Brown (2015), Toll (2008) stated, "coaching supports significant instructional change and increased teacher reflection, which contributes to the

reshaping of school cultures" (Toll, p. 8). Similarly, Woulfin (2014) reported that the role of coaching in the education system has become more apparent than what some call a "drive-by" training session, which rarely produces lasting change (Woulfin, 2014). Coaches can provide ongoing professional learning for teachers while providing feedback and strategies. Coaches can also promote ideas and practices to motivate change towards the rising expectations of students. Coaching strategies can help build capacity for teachers while increasing meaningful collaborative opportunities for professional learning (Woulfin, 2014).

Polly, Mraz, and Algozzine (2013) discussed the implications for designing a coaching program and evaluating the influence of the mathematics program at the elementary level. The authors note that coaching "directs that student achievement is improved by improving the instructional practices of teachers" (Polly et al., 2013, p. 297). The role of a coach is to improve practice among adults, facilitate learning, and encourage a willingness to learn (Onchwari & Keengwe, 2008; Toll, 2008; Woulfin, 2014). Coaches should be seen as content experts, help collect instructional resources, and provide content support (Polly et al., 2013). Coaches should also be considered as promoters of reflective practices and assist teachers in reflecting the level of effectiveness of their practices. It has been found that coaching experiences have "led to greater implementation of recommended instructional practices and increased collaboration among teachers" (Showers & Joyce, 1996, p. 298). Teachers who have worked with coaches incorporate higher-level thinking questions and increase the differentiation of their lessons. When teachers received greater opportunities with a coach, student achievement is improved (Cost & Garmston, 2015; Fullan & Knight, 2011; Polly et al., 2013).

Coaches are a crucial agent of change in schools and can be used as a means for professional development for veteran teachers (Costa & Garmston, 2015; Cox, 2015; Fullan &

Knight, 2011; Poly et al., 2013). It is essential that professional development programs, including coaches, are supported by school principals, or the coaching strategy will not achieve maximum results (Antoniou, 2013; Cheng, 2011; Fullan & Knight, 2011). Coaches are to work closely with principals to plan goals for improvement. Coaches should spend their day "planning lessons with teachers, modeling lessons, observing instruction, facilitating meetings, reviewing student data, and leading the collaboration of student work" (Fullan & Knight, 2011, p. 51). Fullan and Knight (2011) also stressed the importance of placing coaches in possible situations where they can succeed. This means the coaches should understand the schools' improvement plans and giving them the "right work" (Fullan & Knight, 2011, p. 51).

The best practices of professional development in coaching include individualized and school-based professional development and engagement in collaboration (Costa & Garmston, 2015). It is also important that professional development embeds practices into daily lives of teachers (Croft et al., 2010; Nishimura, 2014). While using coaching opportunities as a professional development tool, it is important that the coach-peer relationship encompasses trust and a shared vision as a foundation (Nishimura, 2014). Trust can build quality relationships among the learning organization (Cheng, 2011). When developing a shared vision, members of the organization must be a part of the vision building. When the teachers participate in building the schools' professional development vision, they will feel proud and elicit a sense of ownership, which will, in turn, encourage the teachers to work towards the vision with interest (Cheng, 2011). The authors Costa and Garmston (2015) agreed in reporting that for a coach to be most effective, he or she must be able to work with the variety of personality types and learning styles along with the varied philosophies and visions in the teachers' stage of development (Costa & Garmston, 2015).

In looking at the research and pressure to improve student achievement, Woulfin (2014) described that many states and districts are using coaching to promote changes in practice. Today, more than ever, teachers are experiencing the pressure of increased accountability around student performance in their classroom (Woulfin, 2014). Professional development, along with coaching is essential for promoting change in the classroom (Fullan & Knight, 2011). Coaching provides teachers feedback about instruction and allows both the teacher and coach the ability to examine data and facilitate professional development sessions from the needs of the school (Fullan & Knight, 2011; Cheng, 2011). Coaching is seen as a hands-on strategy to assist with transferring skills into the classroom, view aspects of instruction, and guide the implementation of new theories. Coaching is also key in reducing the individualism of teachers and their teaching (Woulfin, 2014). Coaching is a professional development tool used to build the capacity of teachers and schools as a whole (Bruce & Ross, 2008; Costa & Garmston, 2015; Cox, 2015; Cross, 2012; Fullan & Knight, 2011; Hall & McKeen, 1991; Lloyd & Modlin, 2012; Toll, 2005).

In 2012, Cross reviewed the elements of a five-year grant that was used for improving practice in Weld County kindergarten through eighth-grade schools. The grant added half-time coaches to work with principals, coaches, teachers, and students. The coach also served as a liaison with district administrators and district programs (Cross, 2012). An achievement coach was placed in each building to work with the teacher in their classrooms and help them grow professionally. Coaches met bi-weekly in learning communities to "study, discusses, analyze, reflect, seek, share, risk and grow professionally in their roles" (Cross, 2012, p. 38). The coaches then developed a rubric for planning, facilitating, and evaluating their roles. The planning increased teacher skills through studies and training. The coaches created the same

environment for learning that they felt the teachers should have with each other. Steps that the coaches used to create their rubric included steps to expand background knowledge for professional learning, building of the rubric with indicators and descriptions, the use of the rubric to promote professional learning for coaches, and the use a rubric to plan, implement, and evaluate professional learning (Cross, 2012). The coaching strategy resulted in a significant decrease in teacher turnover and improvement of best practices across the board (Cross, 2012).

Inquiry-based professional development is another form of coaching and is a tool used with a coach to increase teacher capacity (Kazempour & Amirshokoohi, 2014). Inquiry-based coaching elucidates "the process by which teachers learn about inquiry-based teaching" (Kazempour & Amirshokoohi, 2014 p. 285). Science education reform documents, including the National Science Education Standards (NSES), states that inquiry-based professional development is a significant tool in increasing teacher capacity while allowing them to feel empowered, appreciated, valued, and respected when they are part of the professional development process (Kazempour & Amirshokoohi, 2014). Inquiry-based coaching allows for "teacher-centered instruction, direct transition of knowledge and overemphasis on rote memorization of content" (Kazempour & Amirshokoohi, 2014, p. 286). The coaches in inquiry-based researched by Kazempour and Amirshokoohi (2014) examined science education during the adoption of science material. The model allowed coaches to collaborate with teachers to facilitate the science teachers' adoption of the practice itself. The inquiry-based model produced growth in teachers who produced higher levels of student achievement in the classroom (Kazempour & Amirshokoohi, 2014). Since teachers learn by doing, just as students do, it is important that teachers "learn about, see and experience successful learning-centered and learner-centered teaching" (Kazempour & Amirshokoohi, 2014, p. 286). Participants in the

inquiry-based coaching study reported having a more accurate image of scientific inquiry and inquiry-based instruction. Furthermore, when teachers were required to reflect upon their practices the participants gained a new appreciation for what their students experience in their classrooms (Kazempour & Amirshokoohi, 2014). Useful features of professional development should empower the participants. In any professional development model, it is important that teachers feel appreciated, respected, and empowered during the professional development (Costa & Garmston, 2015; Cox, 2015; Fullan & Knight, 2011; Onchwari & Keengwe, 2008).

Bruce and Ross (2008) examined the effects of peer coaching as a professional development tool with math teachers. The authors described peer coaching as an intensive professional development program in which teachers provide each other with feedback about their observed teaching. The study observed a total of 12 teachers in Grade 3 and Grade 6. The correlation between peer coaching and pedagogical training showed improvement towards more effective teaching. As seen in the study by Bruce and Ross, coaching increases teacher quality and collaboration (Costa & Garmston, 2015; Fullan & Knight, 2011; Kazempour & Amirshokoohi, 2014). In conclusion, teacher beliefs about their ability to have a positive impact on student learning and achievement increased with the peer-coaching model (Bruce & Ross, 2008).

Coaching can assist teachers in the strategies needed to reduce disruptive behavior and enhance academic achievement in the classroom (Reinke, Stormont, Herman & Newcomer, 2014). A program called Incredible Years Teacher Classroom Management (IY TCM) is examined as an evidence-based preventative intervention for supporting teachers' classrooms (Costa & Garmston, 2015; Cox, 2015; Reinke et al., 2014). IY TCM is known for its rigor in teaching key concepts through many pieces of training and supports teachers with the one-on-

one coaching model (Reinke et al., 2014). In the study, teachers participated in a six-hour workshop and weekly onsite coaching and provided evidence that proactive strategies used by teachers in the classroom increased overall (Reinke et al., 2014). Coaching models, such as the IY TCM, have been proven to provide a significant positive correlation between teacher feedback and level of implementation of the proactive strategies (Reinke et al., 2014). It has been found that teachers with more feedback have higher levels of student performance (Costa & Garmston, 2015; Reinke et al., 2014).

Cognitive coaching is described as the belief that teaching, human growth, and learning all work together (Costa & Garmston, 2015). Dewey's (1963) philosophy of the theory that individuals are life-long learners, follow the assumption that all human beings have the capability of change and with that change comes growth and a "reservoir" of potential that has not yet been reached (Costa & Garmston, 2015, p. 1). Costa and Garmston (2015) also report that teacher performance is based on making decisions through a thought-process. The phases of growth and change are described as the planning phase, interactive phase, reflective phase, teaching phase, and application phase (Cheng, 2011; Costa & Garman, 2015). Colleagues can significantly improve and enhance a teacher's phases and process. Since cognitive coaching is based on trust, teachers can create, monitor, and maintain a cooperative environment to allow for intellectual growth of the teacher (Costa & Garmston, 2015).

In the supplemental research of Costa and Garmston (2015), the authors observed teacher growth when teachers can reflect upon their own experiences and "use higher-order thinking process to plan, monitor, evaluate, and modify educational task" (p. 44). It has been shown that reflection of a teachers' professional conversations with coaching, is a way teachers can improve their practice and are able to apply new learning (Costa & Garmston, 2015, Fullan & Knight,

2011; Hall & McKeen, 1999). Similar to the adult learning theory by Knowles (1995), Costa and Garmston categorized the five domains of teacher inquiry into (a) content knowledge, (b) pedagogy, (c) knowledge of students, (d) self-knowledge, and (e) knowledge of the process of instruction (Costa & Garmston, 2015, p.44). In cognitive coaching, the role of the coach is to assist teachers in measuring their progress, the existing level of performance, and describe the support needed to reach a higher level of performance (Costa & Garmston, 2015). Costa and Garmston reported that it is important that insights are "generated from within, not given to individuals as conclusions" to be useful (Costa & Garmston, 2015, p. 45).

Instructional coaching can be a valuable tool for professional development (Costa & Garmston, 2015; Knight et al., 2015). The model used by Knight et al. (2015), explored an example of a veteran teacher video recording their own lesson. After viewing the video together, the coach can then work with the teacher to help her with everything from classroom management to instructional strategies (Knight et al., 2015). The first step of a great coach includes identifying teaching strategies that are being utilized (Fullan & Knight, 2011). After the identification, teachers learn to create a checklist and use modeling to make sure that he or she understands the strategy being used (Knight, 2014). Teachers can then monitor progress towards the goal and manage modifications as necessary (Knight, 2014). The instructional coaching model is not only ideal for new teachers learning new strategies but also for veteran teachers who are always renewing, reviewing, and learning strategies for their classroom (Costa & Garmston, 2015; Knight et al., 2015).

The Head Start Programs use a coaching model referred to as the mentor-coach model. Onchwari and Keengwe (2008) examined the impact of the mentor-coach role and the importance of the model to "enhance teacher pedagogical practices" (p. 20). The paramount

element of mentoring is the relationships that develop. Mentor-coaching allows teachers the opportunity to work with someone who understands the teacher's area of concern (Costa & Garman, 2016; Hall& McKeen, 1999). Mentoring also helps enhance teachers' attitude towards changing pedagogy (Onchwari & Keengwe, 2008). Onchwari and Keengwe (2008) conducted a study across two states by interviewing 44 participants. The study suggested that the learning of teachers is more advantageous depending on the collegiality among the teachers. Professional development that allows for guidance, such as mentoring and coaching, can provide not only guidance but ongoing support at the school site (Costa & Garman, 2016; Onchwari & Keengwe, 2008). Since change brings resistance, mentoring and coaching allows teachers to feel safe to make mistakes, reflect on their practices, and share learning practices with their colleagues (Onchwari & Keengwe, 2008).

Content-Focused Coaching (CFC) is a coaching approach that is said to improve instruction and learning in schools that have high teacher mobility (Matsumura et al., 2010). CFC schools use the coaching strategy to improve teaching and student learning (Matsumura et al., 2010). Matsumura et al. (2010), conducted a study which looked at four areas of teaching including the planning and reflection of instruction, the results of providing help during lesson enactments, the building knowledge of the theory underlying effective reading comprehension instructional, and the differentiation of instruction relative to the teachers' peers in the relative schools (Matsumura et al., 2010). Matsumura et al. concluded that these areas of teaching are supported best by using the coaching approach and improve overall instruction.

The theory of andragogy, introduced by Knowles (1995), and Mezirow's (1994) theory of transformative learning support how coaching can be used in the adult learning environment (Cox, 2015). Knowles' theory of andragogy perceived the adult learner to find meaning in, and

become an equal participant in, a teacher's self-determined learning objectives (Knowles, 1995).

In relation to coaching veteran teachers, the theory developed by Knowles included the

importance of adults to be able to reflect on their own experience and support newly inquired

information to previous understandings. The adult learner needs to be able to relate the content

of their learning to their everyday experiences while also recognizing a need for learning

(Knowles, 1995). It is important that adults use their self-direction in attaining their learning

goal so they can develop a need to learn. The veteran teachers in the study by Cox (2015), have

been found to have the need to create work experiences to inspire their learning. Coaches can be

used in the adult learning environment to increase dialogue and facilitate veteran teacher's

reflection through self-reflection and insights (Cox, 2015).

Cox (2015) suggested coaching as a tool to facilitate a conversation between an

employee, who was externally encouraged by her employer to take part in a program, to update

her specific skills. Cox suggested that the employee was not self-directed and instead lacked the

confidence and guidance needed for adult learners. In the study conducted by Cox, the author

found that a correlation between the lack of confidence and direction in teachers can be

supported by someone such as a coach.

When using mentoring and coaching opportunities for veteran teachers, it is important to

successfully prepare the veteran teachers for the role of becoming a mentor or coach (Williams,

2001). When training mentors, Williams (2001) reported that staff development programs

should use both the adult cognitive-development theory as well as the learning theory

components in the training. The Mentoring Induction-Year Teachers coaching course, examined

by Williams was designed to develop skills in veteran teachers who are interested in becoming a

mentor or coach using cognitive coaching strategies (Williams, 2001). The program Mentoring

Induction-Year Teachers coaching course builds upon the adult learning theory developed by Knowles (1995) and has provided the necessary training needed for veteran teachers while also enabling them to become successful mentors and coaches (Williams, 2001).

The study conducted by Heineke (2009) examined coaching between four elementary and coach dyads. Just as Costa and Garmston (2015) noted in their findings, Heineke's (2009) results indicated that the coaches needed to learn to develop strategic questions to allow opportunities to acknowledge teacher's thoughts and ideas. Coaches needed to be trained to be focused and intentional. The role of a coach should remain focused on supporting teachers' professional development (Costa & Garmston, 2015; Cross, 2012; Woulfin, 2014). The study conducted by Heineke (2009) confirmed the works of pervious researchers, such as Costa and Garmston (2015) and Bruce and Ross (2008), in that coaches need to facilitate growth by being less dominant during coaching sessions and encourage joint meaning and understanding of instructional issues. It is important that the teachers are involved in the learning process and are not just "spoken to" (Heineke, 2009).

It is important to note that coaches too can face challenges while coaching teachers (Heineke, 2009). Heineke (2009) studied a coaching initiative including 33 teachers in an urban, high-poverty school. Pre- and post-tests of teachers' knowledge, as well as teacher survey, group interviews, project documents, and field notes were discussed. Heineke (2009) referred to the the well-known author in education Wei et al., (2000), in discussing the notion that teacher quality effects student achievement. In the study, the coach was a leader and consultant who worked on staff development and worked daily with teachers and administrators. The primary challenges the coach faced included the district-mandated basal reading program and "seasoned" teachers who were resistant to change. Also, it is important to note that the program ended

prematurely because the principal who applied for the grant was no longer working at the school. Limited resources were also a challenge. Kindergarten and first-grade teachers received the focus of the reading program, which in turn gave the unintended consequence of leaving out the other elementary teachers. Teachers at the various grade levels had difficulty understanding the role of the coach and the need for a coach. There were also differences in ideas about how to teach early reading (Heineke, 2009). Therefore, it is important to have teachers help in planning and implementation of the school's professional development plan, as noted by various authors including Bayar (2014), Wei et al. (2009), and Toll (2005), so if and when change in administration occurs, the school plan can continue.

The Office of Planning, Research, and Evaluation (Lloyd & Modlin, 2012) discussed the improvement of Head Start Classroom-based Approaches and Resources for Emotion and Social skill promotion (CARES) programs through the coaching of teachers. Since well-designed professional development is important in enhancing the skills of teachers, the CARES program is designed with the development of teachers as coaches (Antoniou, 2013; Wei et al., 2009; Lloyd & Modlin, 2012). In this study, 3,927 students were observed in 307 classrooms across Head Start Centers including 52 coaches. The coaching model included five key elements including being teacher-focused, collaborative, instructional, evaluative, and nonsupervisory. The results of the study indicated that administrators needed to customize the coaching model that best suited their school context. In addition, the type of the coaching model needs to be clearly communicated to everyone involved (Lloyd & Modlin, 2012). The second lesson involved the hiring and training the coach. Along with coaching skills, successful coaches have knowledge of what they are coaching which includes, knowledge in childhood development and teaching. It is important to train coaches in advance of working with teachers if they are to be successful

(Williams, 2001). For the coaching process to be effective, it must involve reflection and development time before meeting with the teacher (Lloyd & Modlin, 2012; Williams, 2001). Day-to-day practices are necessary along with the flexibility for the coaching (Lloyd & Modlin, 2012). A coach must also be actively supervised and engaged by site administrators. Lastly, a coaching model needs to allow for continual monitoring and quality assurance so that the coaching model continues to grow and is deemed useful (Lloyd & Modlin, 2012).

Polly, Mraz, and Algozzine (2013) reviewed a four-year study, which developed, implemented, and evaluated the effectiveness of a literacy improvement model called the Early Childhood Educator Professional Development (ECEPD). The project included 20 literacy coaches. Twelve coaches collaborated in an urban environment while the other eight coaches worked in a high-risk school. Monthly meetings included administrators and university educators to assist in developing the coaches' knowledge. The preparation also included formal presentations on "early literacy content, collaboration on solutions, and informal question and answer sessions" (Polly et al., 2013, p. 300). Coaches were provided the opportunity for growth as a mentor and content expert. They learned content in literacy development by reading research-based books and articles and then presented their findings. They also focused on professional learning communities to build rapport with teachers (Polly et al., 2013). The study suggested, similar to other authors' findings that improved instructional practices occurred when coaches were involved in providing adequate resources for teachers that the coaches learned from the coach preparation program (Lloyd & Modlin, 2012; Polly et al., 2013; Williams, 2001).

When training coaches and mentors, using instructional coaching cycles can be an essential element of effective coaching programs (Knight et al., 2015). It is important that coaches too receive professional learning to ensure that they too understand how to "navigate the

complexities" of working and helping adults (Knight et al., 2015, p. 18). Instruction for coaches can include a focus on a set of teaching practices, learning to communicate and lead effectively, and foster a professional development program that is meaningful to the both the coach and the teacher (Knight et al., 2015; Williams, 2001).

<div align="center">**Summary**</div>

The research conducted by many key educational change agents, including DuFour and Fullan (2013), Fuller and Knight (2011), and Senge et al. (2012), indicated that veteran teachers' needs are different than those of novice teachers. Effective professional development strategies find its roots in the adult educational philosophies of Dewey (1963), Fuller and Brown (1973), and Knowles (1995).

While veteran teachers understand how to manage classrooms and have a firm grasp on how students learn, according to the research, veteran teachers become stagnant after teaching for five or more years and need professional development to help keep them current with the changing requirements from the state and the change of student needs. Professional development for veteran teachers can come in various forms including Instructional Rounds, professional learning communities, collaboration, problem and inquiry-based learning, and a variety of coaching and mentoring strategies. Throughout the literature review, coaching and mentoring is the preferred model of professional development for veteran teachers. Coaching provides teachers the opportunity to reflect on their teaching practices while providing ongoing support for colleagues at both the elementary and middle school levels (Costa & Garmston, 2017; Cox, 2015; Onchwari & Keengwe, 2008). All forms of professional development have many of the same elements including the following: job-embedded, allow for reflection and collaboration, and have the support of the school administration.

Chapter 2 presented the review of the relevant literature. Chapter 3 describes the methodology

of the study.

CHAPTER 3: METHODOLOGY

The primary goal of this study was to examine veteran teachers and the specific professional development opportunities available to them. While each school district is different, the research discussed in Chapter 2 showed that opportunities are available to include teachers in peer coaching, Instructional Rounds, and observations. In further exploring veteran teachers and professional development opportunities, the following questions were addressed in the mixed methods research design:

1. What are the tools and coaching models for professional development for veteran teachers?

2. How can veteran teachers be supported to grow professionally?

The research collected pretest and posttest data from veteran teachers before and after the intervention. The results of the surveys were used to create follow-up questions for administrators based on the grounded theory model. The administrators discussed and made comments on the realistic implementation of professional development for veteran teachers in schools. The quantitative survey results and qualitative administrator response were organized into themes, and a theory emerged.

Setting and Participants

Participants used for this study were selected from one large middle school and an average sized elementary school in Southern California. The school district is located in an affluent suburb near Los Angeles. The school district falls in the top five school districts in the state of California. At the time of the study, the middle school had approximately 950 students with 50 teachers and 20 additional staff members. The student demographics at the middle school were 58% White, 22% Asian, 9% two or more races, 8% Hispanic, 2% African American,

and less than 1% Filipino, Pacific Islander, and American Indian. At the time of the study, the elementary school was comprised of approximately 450 students in grades Pre-K through Grade 5. The makeup of the elementary school was approximately 26 teachers and an additional 30 support staff members. Two percent of the students came from a low-income family while 13% of the students were English Language Learners. The student to staff ratio was 24:1. Fifty-six percent were White, 23% Asian, 11% Hispanic, 4% two or more races, and less than 1% of each African American, American Indian, and Pacific Islander. The parent participation was high at both the middle school and elementary school. The high parent participation supplied students with additional extracurricular opportunities otherwise not available, such as art, music technology, and STEM. Participants in the research study included veteran teachers and school administrators from a middle school and an elementary school in the same school district.

The teachers' survey results indicated that a total of 12 of the participants had been teaching 6 - 10 years. Nine of the participants had been teaching 11- 15 years. Twenty of the participants had been teaching 16 - 25 years, and 12 of the participants had been teaching for 26 or more years.

The survey results indicated that the ages of the participants included 10 participants who indicated they were 25 - 34 years old. Nineteen of the participants indicated they were 35 - 44 years old. Twenty-three of the participants indicated they were 45 - 54 years old. Two of the participants indicated they were 55 - 63 years old. One participant indicated he or she was 64 - 74. None of the participants indicated they were 75 or older. Overall, a total of 16 participants taught in the elementary school (Grades TK-5), and 32 of the participants taught in the middle school (Grades 6-8).

The administrators surveyed were principals of either an elementary or a middle school in the same school district. Four of the administrators indicated had been in education for 19 - 24 years, and two of the administrators indicated they had been in education for 30 - 42 years. Each of the administrators had previously been teachers who had participated in a variety of professional development opportunities, as teachers, that each administrator labeled as unsuccessful.

Sampling Procedures

The sample procedure included the process of using convenience sampling. The data collection included local participants. The sample for the study consisted of 48 veteran elementary and middle school teachers. The sample also included six principals from a middle school or elementary school in a suburb of Los Angeles, California. Prior to the pretest, intervention, and posttest, the researcher informally met with the participating teachers and explained the research she was conducting. The researcher also mentioned the voluntary opportunity for them to participate in the study.

Instrumentation

The researcher used a Likert scale survey as the instrument for the quantitative portion of the study. Using a quasi-experimental design allowed the researcher to take the results of the survey and create interview questions for the qualitative research.

The Continuing Professional Development Survey was divided into the following sections: continuing professional development opportunities, learning, tools and ideas, and demographic information. The survey is located in Appendix A. The survey questions are located in Table 1 and Table 2.

Table 1

Survey Questions 1-12

Question Number	Actual Question
1	I feel my school's professional development plan is clearly communicated.
2	My school encourages professional development.
3	Teachers are a part of the planning of professional development opportunities
4	I feel I can learn from my peers in terms of making my classroom more effective.
5	I feel my peers can learn from watching me teach in my classroom.
6	I would like to see more peer coaching as a professional development tool in my school.
7	Instructional Rounds is a tool used in many schools to be able to go into colleagues' classrooms and view their teaching. I feel my classroom can benefit from the use of Instructional Rounds as a professional development tool.
8	I would like the opportunity to help plan and develop professional learning opportunities at my school.
9	I am interested in learning about ways to enhance my classroom.
10	I readily take what I learn in professional development opportunities and use it in my classroom.
11	I enjoy speaking and interacting with my school learning community, including, teachers, staff and administrators.
12	I would like to be actively involved in the learning process of teachers in my school.

Table 2

Survey Questions 13-18

Question Number	Actual Question
13	I welcome constructive criticism and feedback to help my performance in the classroom.
	The survey questions 14 through 17 allowed participants to answer the open-ended questions.
14	What type(s) of professional development do you feel is needed for a veteran teacher? For example, coaching, observing other teachers, attending workshops, etc.
15	What tools do you feel will help you identify areas of growth in your classroom?
16	What type of tools do you feel you need to help you learn and improve in your own classroom?
17	What type of information is valuable for the veteran teacher to enhance learning?
18	If you had the opportunity to develop a professional plan during Monday meetings (1 hour each) which topics would you be interested in learning more about? Check all that apply. Participants were allowed to respond with more than one answer of: student engagement, instructional strategies, classroom management, differentiation techniques, Instructional Rounds, growth mindset, specific programs or other. Participants could write in the Other response.

The interview instrument was designed from the results of the quantitative study. The interview questions were researcher-designed, in line with the quasi-experimental design of the study. The results from the quantitative study were presented to participating middle school and

elementary school principals. The principals were asked a series of questions and were invited to provide ideas to help develop effective professional development for veteran teachers. The questions posed to administrators include the following:

1. Given the information about teacher's willingness to learn, how do you think schools can incorporate their willingness into their professional development plan?

2. How do you think collaboration or observations are something that are possible to incorporate in a school's professional development plan?

3. Teachers would like the opportunity to help plan and develop professional learning opportunities. How can schools incorporate this into their professional development plan?

4. Teachers are interested in learning about specific programs? Could professional development plans include programs like CGI and reading strategies? How would we do that?

5. How can you use time and money differently to create the best possible professional development for teachers?

Follow-up Questions

1. How many years have you been in education?

2. What has been your experience with professional development for teachers?

3. Do you think the current models of professional development are effective?

<div align="center">

Description of the Intervention

</div>

The intervention was provided by the researcher, who was an administrator employed by the same district as the elementary and middle school teachers in the study. The researcher worked with the staff of both the elementary and middle school in her career. The researcher

was also familiar with the district's current form of professional development for teachers. The focus of the intervention presentation was to explain the adult learning theory and the various forms of professional development available to teachers in and out of the school district. The focus also included making teachers aware of how they, as adults, learn and can help shape their learning in their profession.

The one-hour professional development session at the middle school and the elementary school was presented via PowerPoint and is located in Appendix B. During the intervention the teachers were seated in the schools' multipurpose rooms in tables of five and facing forward. Manilla folders were placed in front of each seat and contained a color-coded copy of the pretest and posttest. The researcher also placed bottles of water and pens in front of each seat. The researcher began by explaining to the teachers the purpose of the pretest, intervention, and posttest. The researcher then explained that the purpose of training teachers is so that they can become aware of and help guide their own learning as teachers.

When teachers walked into the multipurpose room, they were given an introduction and were asked to have a seat and fill out their pretest survey. Once the researcher noticed that all of the teachers completed the pretest survey, the intervention began. When the intervention was complete teachers were asked to fill out the posttest located in the manila folder in front of them. The intervention agenda is listed in Table 3.

Table 3

Intervention Agenda

Topic	Estimated Time
Introduction	3-5 Minutes
Pretest	7-10 Minutes
PowerPoint Presentation Introduction	3-5 Minutes
Andragogy and Professional Development	
Purpose of the Study	4-7 Minutes
Professional Development Tools Slide	5- 8 Minutes
What Will We Do With This?	5-8 Minutes
Andragogy	7-10 Minutes
Professional Development	3-5 Minutes
Forms of PD	8-10 Minutes
Research Tell us About Each Type of PD	3-4 Minutes
Research Tells Us	5-8 Minutes
More Research	5-8 Minutes
Even More Research	5-8 Minutes
How can Adult Learning Theory help Guide PD?	2-3 Minutes
Qualitative Research	2-5 Minutes
Thank You	1-2 Minutes

During the intervention, the participants received information about the topics of adult learning theory and the variety of opportunities available to educators in order to develop and support them professionally. The researcher explained each slide and allowed for questions throughout the presentation. During the intervention a colleague assisted in taking notes from the intervention which are located in Appendix C.

Data Collection Procedures

The following highlights the steps to the data collection. The first step included the construction of the instrument by generating items from the review of the literature. In addition, the researcher's experience in the field of education contributed to the development of the survey questions. Various colleagues reviewed the items to gain information about each teacher's experience, views, and interest in professional development. The items were then placed in a questionnaire format using a Likert scale. The items were then reviewed by various colleagues in the researcher's doctoral program for suggestions about content reliability.

The second step included the distribution of the pretest and posttest survey titled *The* Continuing Professional Development Survey to elementary and middle school teachers. The survey was created by the researcher using an online survey tool known as SurveyMonkey, as shown in Appendix A. The researcher made copies of each survey and placed a color-coded copy of the survey in a manila folder located in front of each seat of the participants. The title of the pretest was highlighted in blue and the title of the posttest was highlighted in yellow, which allowed the researcher to refer not only to the title of the survey but also the color code for additional reliability. After the pretest was complete, an intervention in the form of a PowerPoint presentation was conducted to the elementary and middle school teachers. Once the

intervention was complete, teachers were asked to complete a posttest survey located in their manila folders.

The third step followed the survey. After the survey the results of the pretest and posttest were analyzed. The quasi-experimental designed allowed the researcher and dissertation committee to create qualitative interview questions for administrators. Administrators were interviewed. The results of the interviews were coded by the researcher and multiple doctoral candidates and placed into themes before a theory was produced. After the intervention and the final survey, the results were theorized and presented during an interview to administrators. A total of six elementary and middle school principals were interviewed.

In the fourth step data was collected and categorized using a grounded theory method (Harley et al., 2009). While examining the data, open coding allowed for main categories to emerge. Axial coding and selective coding assisted in interpreting the data. The beliefs and ideologies of the participants were discussed and a theory emerged from the data.

<center>**Data Analysis**</center>

Descriptive and inferential statistics were used to investigate the two research questions of this study (Lunenberg & Irby, 2008). The researcher used multiple comparisons, including the Analysis of Variance (ANOVA) method, to compare the amount of variance between the pretest and posttest survey responses. The categories in the survey questions included the following: continuing professional development opportunities, interest in learning, teacher's tools and ideas for professional development, and demographic information. The mean populations were compared using a *type-1* error with a 95% level of confidence. Once the ANOVA test was completed, the researcher conducted a *t*-test, for each question, to determine the variance in each question. In addition, the pretest and posttest answers were entered into a

bar graph, as a visual tool, which was then used in the qualitative study. The study employed both a qualitative and quantitative methodology of data collection and data analysis (Lunenberg & Irby, 2008).

Once the data had been collected from the survey, each question was analyzed and dissected to determine if the intervention did indeed result in a shift in veteran teacher responses. Because multiple comparisons needed to occur, the researcher used the Analysis of Variance (ANOVA) method. This method allowed the researcher to compare several parameters at once (Sprinthall, 2012). Since the researcher compared the pretest results to the posttest results, the mean populations were compared using a *type-1* error with a 95% level of confidence. While the ANOVA comparison yielded no significant difference in the data of the pretest and posttest, the researcher chose to analyze further by using a t-test to compare the pretest and posttest responses.

The results of the survey were used in the quasi-experimental design to create questions for the administrators located in Appendix F. The researcher's dissertation committee assisted in refining the one-on-one questions for administrators. The interviews took place one-on-one at each of the participating administrators' offices. During that time, the administrators allowed the researcher to audio record the conversation. After the interview, the researcher took notes from the audio recordings and conducted member checking with the administrators to validate their answers.

The results from the interviews were coded into themes. The researcher collaborated with the dissertation cohort to assist in the coding and themes of the administrator's responses. In addition, the researcher placed the administrators' responses in the NVIVO tool to organize the results into themes. The results from both the collaboration of the cohort and the NVIVO

tool were used to create the theory of effective professional development tools to assist veteran teachers.

Reliability

The research has addressed the concepts of validity and reliability. Actions taken to control error and reduce inconsistency included making sure that all the measurements were repeatable. This means if the researcher were to give the same group of teachers the same surveys, their responses would be the same. Another way the researcher has ensured the reliability of the test is to take a look at the internal validity and split the results in half. The first half should be similar in results to the second half. The researcher continued to increase reliability by using multiple judges to observe the same situation. There was agreement among the observations as well as a consistent scoring system. Lastly, the researcher increased the number of items on the survey to improve the consistency of the source (Lunenberg & Irby, 2008).

During the intervention, a non-participant scribed the information and observations (Appendix E). During the interviews, reliability was enhanced by first gaining the trust of the participants. The interview was audio recorded to allow the use of verbatim observations.

Validity

During the researcher's doctoral course work, with the direction of the professor, the researcher created the quantitative pretest and posttest. Peers in the doctoral class reviewed the survey and participated in the refinement of the final survey questions. In addition, the researcher's dissertation committee reviewed and discussed the qualitative interview questions. The researcher has ensured that the survey results discriminate among unrelated measures (discriminant validity) but agree with related measures, also referred to as convergent validity

(Lunenberg & Irby, 2008). The criterion validity was examined to determine that the survey accurately predicted the outcomes.

Triangulation allowed the researcher to collaborate evidence from different sources to produce themes. The evidence from the interviews was used to code and create the themes. Member checking was used to allow the researcher to bring the conclusions back to the participants so that they had the opportunity to comment and assist in the accuracy of the information recorded (Creswell, 2013).

Survey Analysis

Once the pretest, intervention, and posttest were complete, the researcher analyzed the results using the ANOVA survey analysis tool. In addition, the researcher conducted a t-test for each question to verify the results of the ANOVA analysis.

The researcher created interview questions from the ANOVA and *t*-test survey results. Interviews were then conducted after the survey results had been analyzed. The survey results were provided to administrators in the form of bar graphs during one-on-one interviews. Administrators were then asked to determine how programs can be designed from the results to assist in professional development for veteran teachers in their schools.

The literature, along with the survey and interview results were analyzed to support educators in opportunities for professional development. Once the survey and interview questions were thoroughly analyzed, the researcher was able to conclude which professional development tools were most commonly being used. The researcher was also able to verify the opportunities preferred by veteran teachers as a means of their professional development.

Plan to Address Ethical Issues

The researcher obtained a National Institute of Health (NIH) certificate to move forward with the study of human subjects (Appendix C). The researcher also gained Internal Review Board (IRB) approval (Appendix D). Ethical issues were addressed, including procedural fidelity, by naming all steps that were completed during the research. Each step has been defined and the measurement system was clearly stated in Chapter 3. Discrepancies were identified in the research. Both the qualitative and quantitative data were carefully measured to determine if the intervention was effective and under which conditions.

It is important to note the potential bias in collecting data. The researcher was a long-time employee and current administrator in the school district in which the study was conducted. Answers to the survey and/or interview questions may have been skewed due to the supervisory position the researcher held at the time of the study in the school district.

Summary

The Continuing Professional Development Survey allowed the researcher to better understand current professional development practices and opportunities for veteran teachers. The survey also allowed administrators to examine the variety of professional development strategies useful for veteran teachers along with the attitudes and desires for teachers to continue to update and expand their teaching practices. The quasi-experimental one-group pretest posttest design allowed for an intervention of the group to determine the difference of population means using a *type-1* error with a 95% level of confidence. The grounded theory model was used to provide information to administrators as discussion points during the one-to-one interviews (Cresswell, 2013). The results were then analyzed, coded, and placed into themes to produce a theory from the research.

CHAPTER 4: RESULTS

Professional development opportunities allow teachers to grow and become more effective in their professions. Educators at all stages of their career must develop their knowledge in order to meet the changing needs of students (Senge et al., 2012). The question then becomes, how can veteran teachers be supported to grow professionally? Professional development opportunities tailored for veteran teachers are scarce, but when they do occur, they can vary from in-service training or ongoing workshops and collaboration in the school. This study investigated the variety of tools and coaching models available for the professional development of veteran teachers. The attitudes and willingness of veteran teachers to participate in such professional learning have also been examined. Additionally, this study investigated the views and experience of administrators in implementing professional development strategies in their schools.

The purpose of this study was to examine veteran teachers' willingness to engage in professional development. It was also designed to explore administrators' expertise in implementing professional development tools for these veteran teachers. This chapter presents the results of the data analysis for the stated research questions.

1. What are the tools and coaching models for the professional development for veteran teachers?

2. How can veteran teachers be supported to grow professionally?

Pretest and Posttest Survey

A pretest and posttest were given to veteran teachers at both an elementary and a middle school. The first thirteen survey questions allowed for a forced answer of "Strongly Agree," "Agree," "Undecided," "Disagree," or "Strongly Disagree."

Survey Question 1: "I feel my school's professional development plan is clearly communicated." The survey results indicated that five of participants answered "Strongly Agree" in the pretest compared to six participants in the posttest. Twenty-one participants answered "Agree*"* in the pretest compared to 20 in the posttest. Six participants answered "Undecided" compared to seven in the posttest. Sixteen participants answered "Disagree" compared to 16 in the posttest. Four participants answered "Strongly Disagree" compared to three in the posttest. A histogram of the results is in Figure 1.
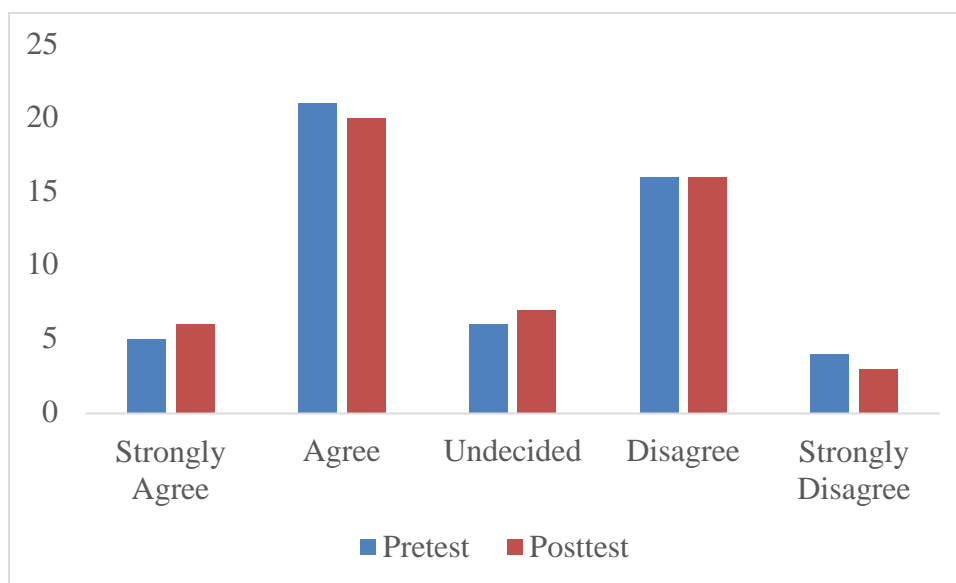

Figure 1. Question 1: This figure illustrates the pretest and posttest responses from Question 1 in the Continuing Professional Development Survey.

Survey Question 2: "My school encourages professional development." The survey results indicated that 16 of participants answered "Strongly Agree" in the pretest compared to 14 participants in the posttest. Twenty participants answered "Agree" in the pretest compared to 29 in the posttest. Twelve participants answered "Undecided" compared to six in the posttest. Four participants answered "Disagree" compared to three in the posttest. None of the participants

answered "Strongly Disagree" compared to none in the posttest. A histogram of the results is in
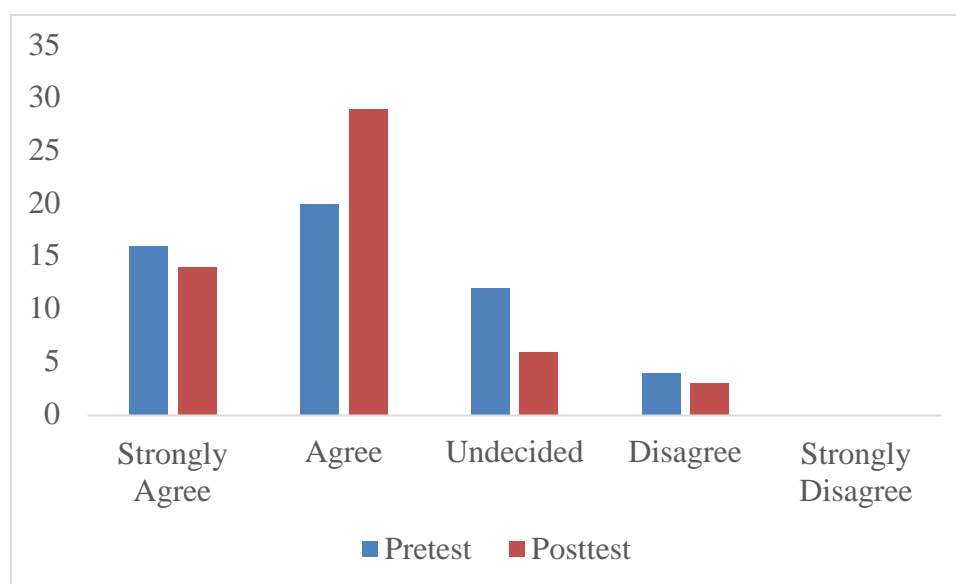
Figure 2.

Figure 2: Question 2: This figure illustrates the pretest and posttest responses from Question 2 in

the Continuing Professional Development Survey.

Survey Question 3: "Teachers are a part of the planning of professional development

opportunities." The survey results indicated that nine of participants answered "Strongly Agree"

in the pretest compared to 11 participants in the posttest. Twenty participants answered "Agree"

in the pretest compared to 20 in the posttest. Eight participants answered "Undecided" compared

to seven in the posttest. Eleven participants answered "Disagree" compared to 11 in the posttest.

Five participants answered "Strongly Disagree" compared to five in the posttest. A histogram of
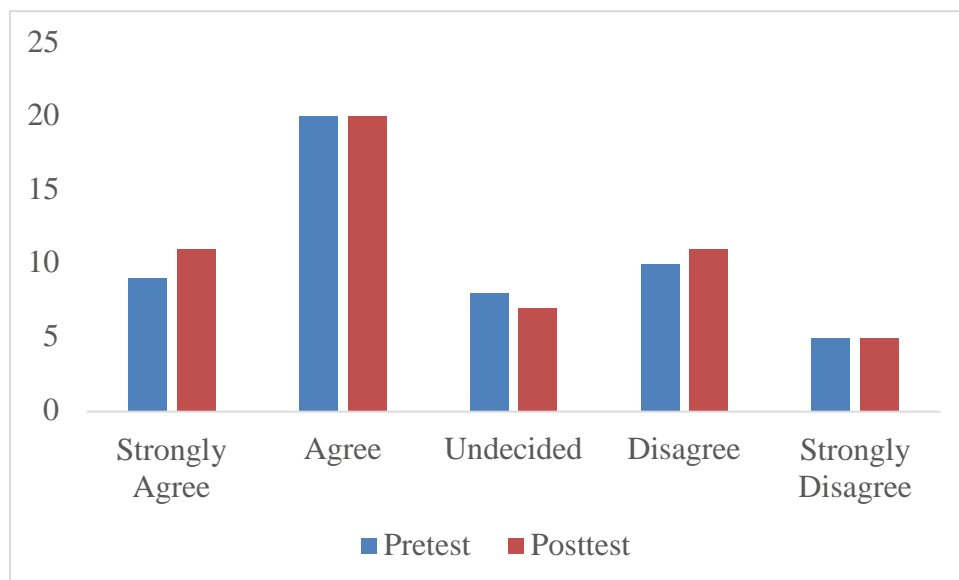
the results is in Figure 3.

Figure 3. Question 3: This figure illustrates the pretest and posttest responses from Question 3 in the Continuing Professional Development Survey.

Survey Question 4: "I feel I can learn from my peers in terms of making my classroom more effective." The survey results indicated that 27 of participants answered "Strongly Agree" in the pretest compared to 26 participants in the posttest. Twenty participants answered "Agree" in the pretest compared to 25 in the posttest. Three participants answered "Undecided" compared to one in the posttest. Two participants answered "Disagree" compared to zero in the posttest. None of the participants answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 4.

Figure 4. Question 4: This figure illustrates the pretest and posttest responses from Question 4 in the Continuing Professional Development Survey.

Survey Question 5: "I feel my peers can learn from watching me teach in my classroom." The survey results indicated that six of participants answered "Strongly Agree" in the pretest compared to eight participants in the posttest. Thirty-nine participants answered "Agree" in the pretest compared to 37 in the posttest. Three participants answered "Undecided" compared to three in the posttest. One participant answered "Disagree" compared to zero in the posttest. Zero participants answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 5.
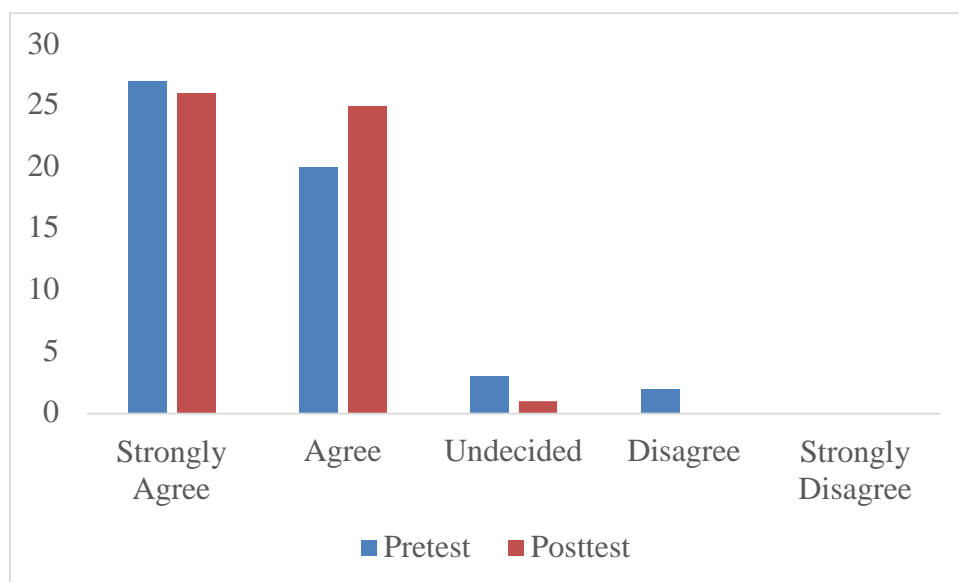
Figure 5. Question 5: This figure illustrates the pretest and posttest responses from Question 5 in the Continuing Professional Development Survey.

Survey Question 6: "I would like to see more peer coaching as a professional development tool in my school." The survey results indicated that six of participants answered "Strongly Agree" in the pretest compared to four participants in the posttest. Twenty-four participants answered "Agree" in the pretest compared to 28 in the posttest. Seventeen participants answered "Undecided" compared to 10 in the posttest. Four participants answered "Disagree" compared to three in the posttest. One participant answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 6.
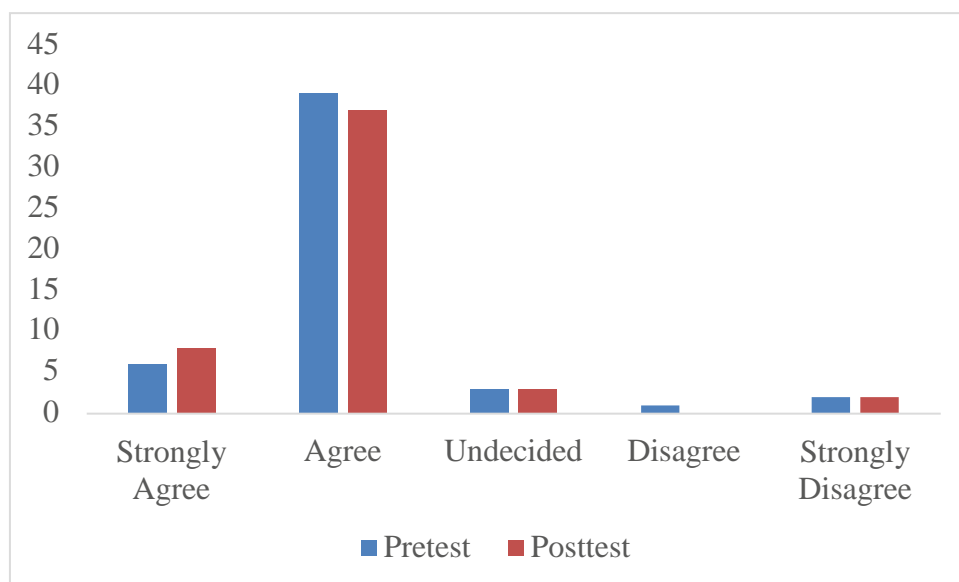
Figure 6. Question 6: This figure illustrates the pretest and posttest responses from Question 6 in the Continuing Professional Development Survey.

Survey Question 7: "Instructional Rounds is a tool used in many schools to be able to go into colleagues' classrooms and view their teaching. I feel my classroom can benefit from the use of Instructional Rounds as a professional development tool." The survey results indicated that five of participants answered "Strongly Agree" in the pretest compared to 12 participants in the posttest. Twenty-six participants answered "Agree" in the pretest compared to 27 in the posttest. Thirteen participants answered "Undecided" compared to nine in the posttest. Eight participants answered "Disagree" compared to two in the posttest. Zero participants answered "Strongly Disagree" compared to one in the posttest. A histogram of the results is in Figure 7.
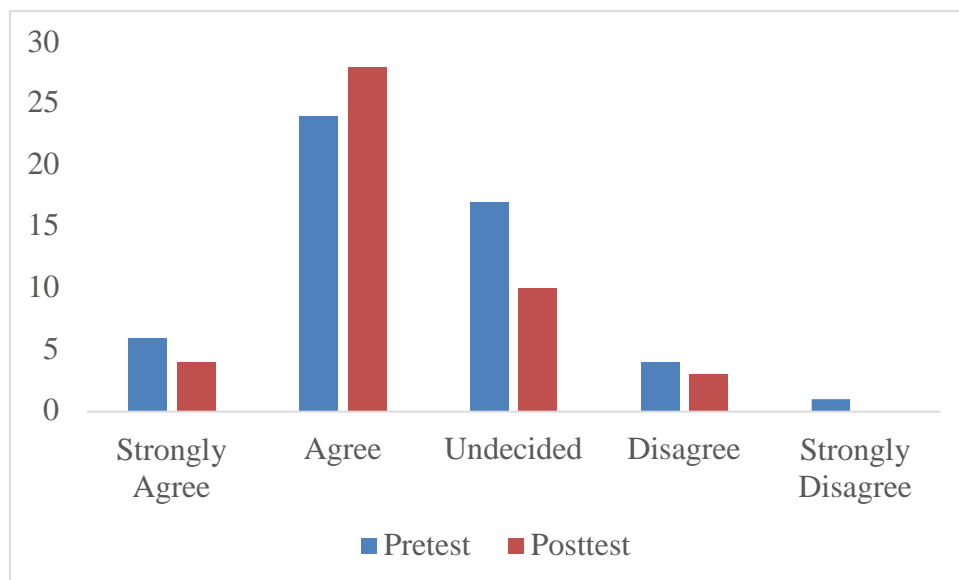
Figure 7. Question 7: This figure illustrates the pretest and posttest responses from Question seven in the Continuing Professional Development Survey.

Survey Question 8: "I would like the opportunity to help plan and develop professional learning opportunities at my school." The survey results indicated that eight of participants answered "Strongly Agree" in the pretest compared to 10 participants in the posttest. Eighteen participants answered "Agree" in the pretest compared to 21 in the posttest. Fourteen participants answered "Undecided" compared to 13 in the posttest. Eight participants answered "Disagree" compared to seven in the posttest. Four participants answered "Strongly Disagree" compared to one in the posttest. A histogram of the results is in Figure 8.

Figure 8. Question 8: This figure illustrates the pretest and posttest responses from Question 8 in the Continuing Professional Development Survey.

Survey Question 9: "I am interested in learning about ways to enhance my classroom." The survey results indicated that 15 of participants answered "Strongly Agree" in the pretest compared to 26 participants in the posttest. Twenty-five participants answered "Agree" in the pretest compared to 26 in the posttest. None of the participants answered "Undecided" in either the pretest or posttest. Two participants answered "Disagree" compared to zero in the posttest. Zero participants answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 9.
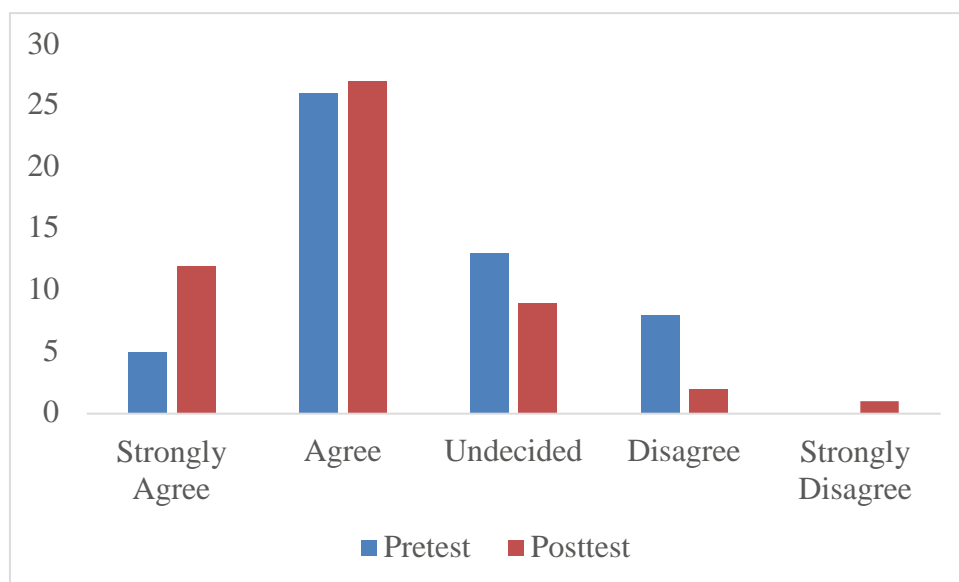
Figure 9. Question 9: This figure illustrates the pretest and posttest responses from question nine in the Continuing Professional Development Survey.

Survey Question 10: "I readily take what I learn in professional development opportunities and use it in my classroom." The survey results indicated that nine of participants answered "Strongly Agree" in the pretest compared to nine participants in the posttest. Thirty-two participants answered "Agree" in the pretest compared to 33 in the posttest. Four participants answered "Undecided" compared to four in the posttest. Five participants answered "Disagree" compared to four in the posttest. One participant answered "Strongly Disagree" compared to one in the posttest. A histogram of the results is in Figure 10.
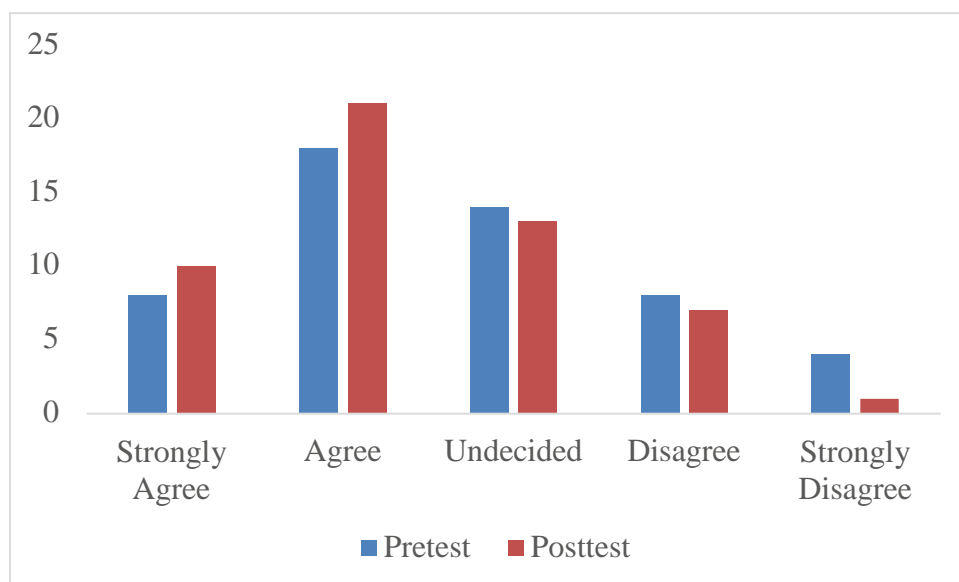
Figure 10. Question 10: This figure illustrates the pretest and posttest responses from Question 10 in the Continuing Professional Development Survey.

Survey Question 11: "I enjoy speaking and interacting with my school learning community, including, teachers, staff and administrators." The survey results indicated that 20 of participants answered "Strongly Agree" in the pretest compared to 16 participants in the posttest. Twenty-five participants answered "Agree" in the pretest compared to 30 in the posttest. Four participants answered "Undecided" compared to three in the posttest. Two participants answered "Disagree" compared to three in the posttest. One participant answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 11.
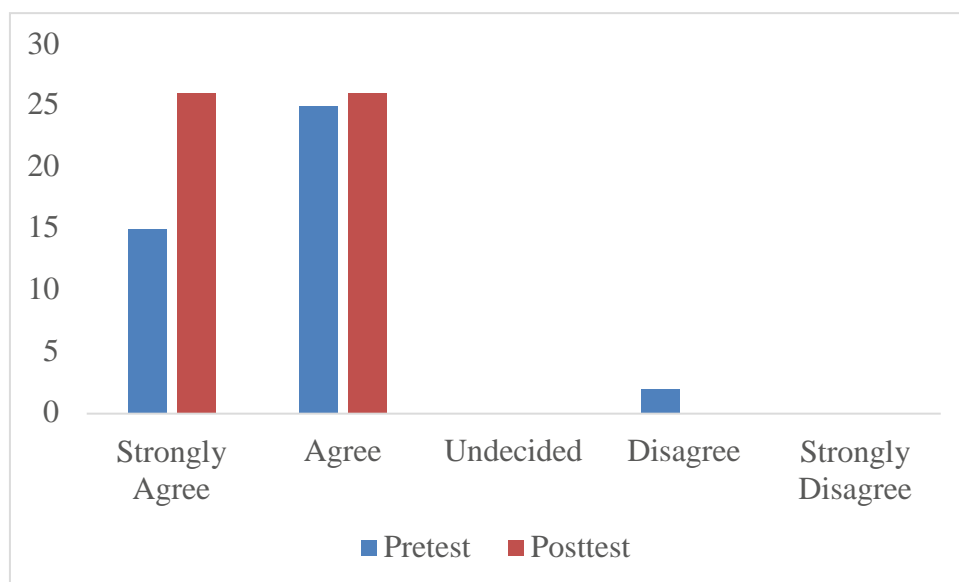
Figure 11. Question 11: This figure illustrates the pretest and posttest responses from Question 11 in the Continuing Professional Development Survey.

Survey Question 12: "I would like to be actively involved in the learning process of teachers in my school." The survey results indicated that seven of participants answered "Strongly Agree" in the pretest compared to 12 participants in the posttest. Twenty-one participants answered "Agree" in the pretest compared to 22 in the posttest. Fifteen participants answered "Undecided" compared to five in the posttest. Six participants answered "Disagree" compared to three in the posttest. Two participants answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 12.
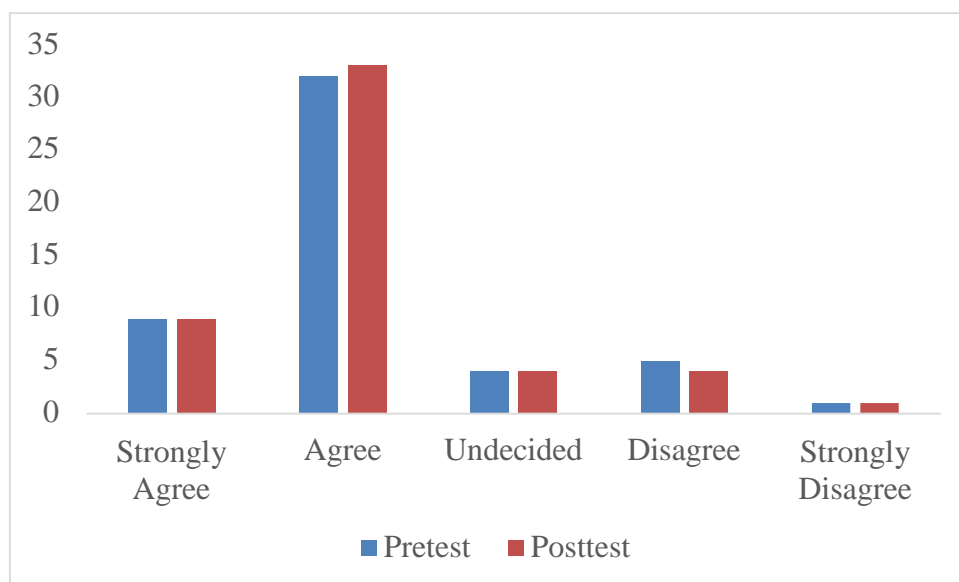
Figure 12. Question 12: This figure illustrates the pretest and posttest responses from Question 12 in the *Continuing Professional Development Survey*.

Survey Question 13: "I welcome constructive criticism and feedback to help my performance in the classroom." The survey results indicated that 15 of participants answered "Strongly Agree" in the pretest compared to eight participants in the posttest. Thirty-three participants answered "Agree" in the pretest compared to 30 in the posttest. Three participants answered "Undecided" compared to four in the posttest. One participant answered "Disagree" compared to zero in the posttest. Zero participants answered "Strongly Disagree" compared to zero in the posttest. A histogram of the results is in Figure 13.
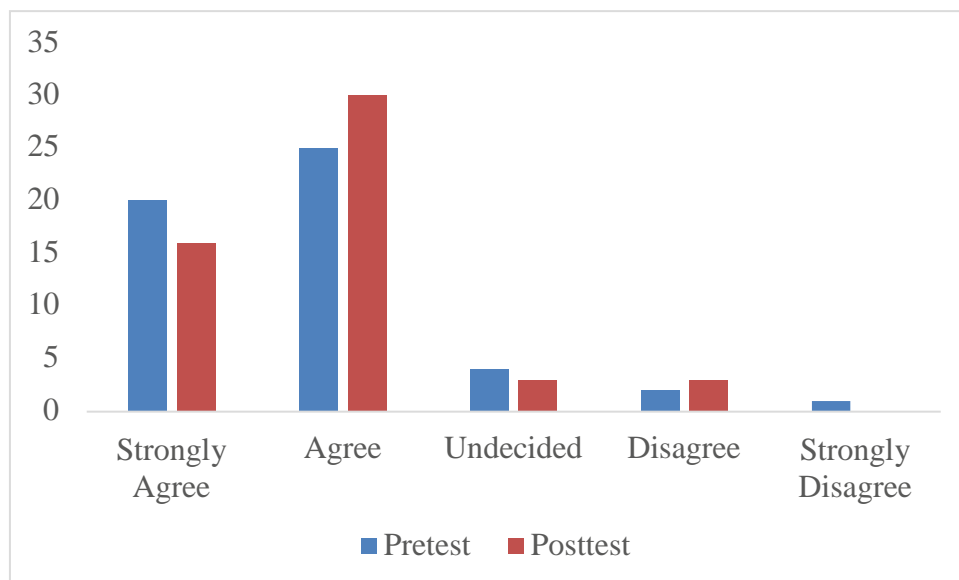
Figure 13. Question 13: This figure illustrates the pretest and posttest responses from Question 13 in the Continuing Professional Development Survey.

Survey Questions 14 – 17 asked participants to respond in the form of short answer. The responses were analyzed and coded into categories in order to be presented graphically. The results are as follows:

Survey Question 14: "What type(s) of professional development do you feel is needed for a veteran teacher? For example, coaching, observing other teachers, attending workshops, etc." In the pretest, 30 participants included a response that indicated a desire to attend professional development workshops; however, these kinds of responses dropped to 17 in the posttest. Eight participants indicated a need for coaching in the pretest; whereas thirteen participants indicated this in the posttest. Two participants indicated a need for collaboration in the pretest; whereas nine participants indicated this in the posttest. In the pretest, 24 participants included a response that indicated a desire to observe their colleagues; however, the response rose to 29 in the posttest. One participant in the pretest shared the response of the desire to learn more about new

research and programs; however, the response raised to four in the posttest. A histogram of the
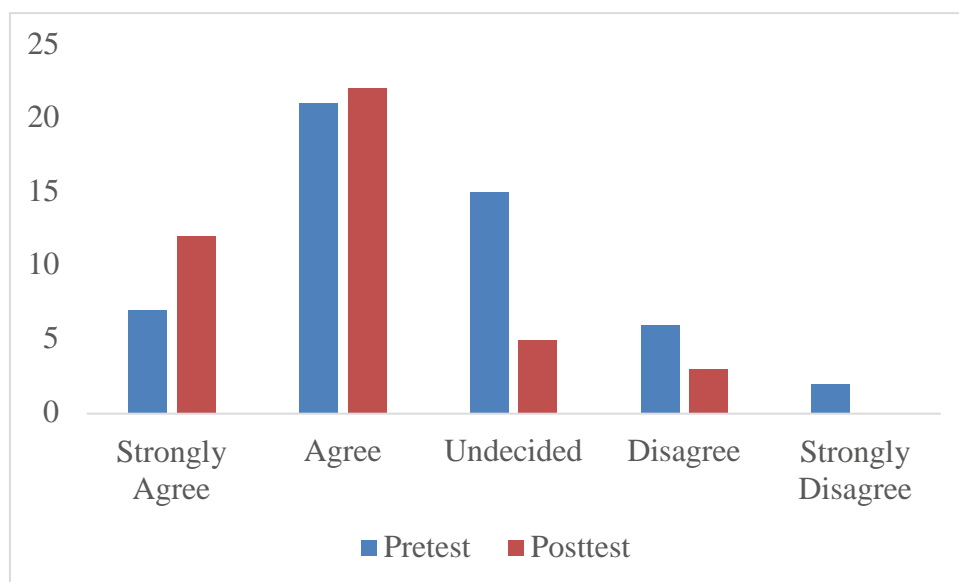
results is in Figure 14.

Figure 14. Question 14: This figure illustrates the pretest and posttest responses from Question

14 in the *Continuing Professional Development Survey*.

Survey Question 15: "What tools do you feel will help you identify areas of growth in

your classroom?" In the pretest, eight participants indicated a desire to conduct observations and

receive feedback from their colleagues; however, these kinds of responses increase to 21 in the

the posttest. A histogram of the results is in Figure 15.
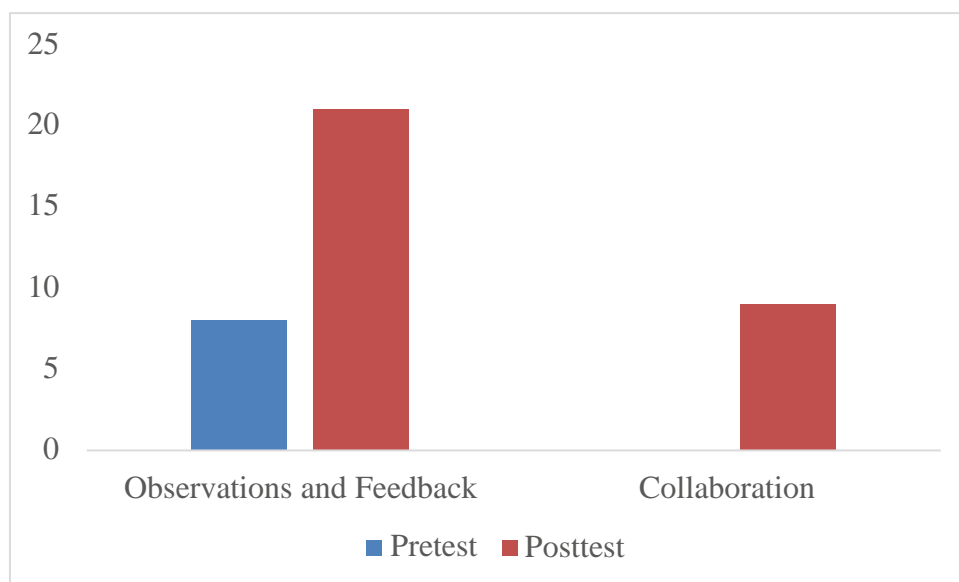
Figure 15. Question 15: This figure illustrates the pretest and posttest responses from Question 15 in the Continuing Professional Development Survey.

Survey Question 16: "What type of tools do you feel you need to help you learn and improve in your own classroom?" In the pretest and posttest, 10 participants indicated a desire to collaborate their colleagues. In the pretest and posttest, seven participants indicated they would like to participate in colleague observations and feedback. A histogram of these results is in Figure 16.
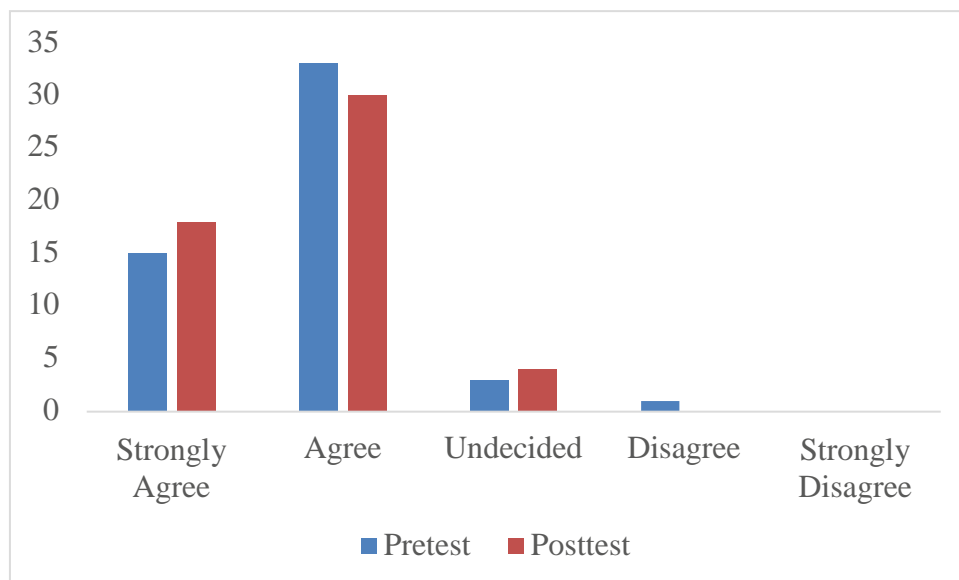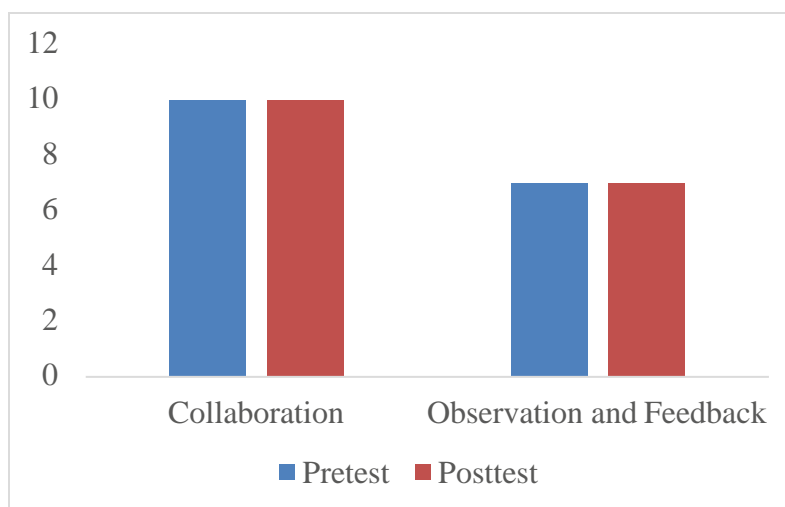
Figure 16. Question 16: This figure illustrates the pretest and posttest responses from Question 16 in the Continuing Professional Development Survey.

Survey Question 17: "What type of information is valuable for the veteran teacher to enhance learning?" In the pretest, eight participants indicated a desire to learn new or important information about current research; however, these kinds of responses increased to 10 in the the posttest. The desire for teachers to collaborate among their colleagues also increased from the pretest to the posttest. Two participants indicated a desire for collaboration in the pretest compared to five participants in the posttest. A histogram of these results is in Figure 17.
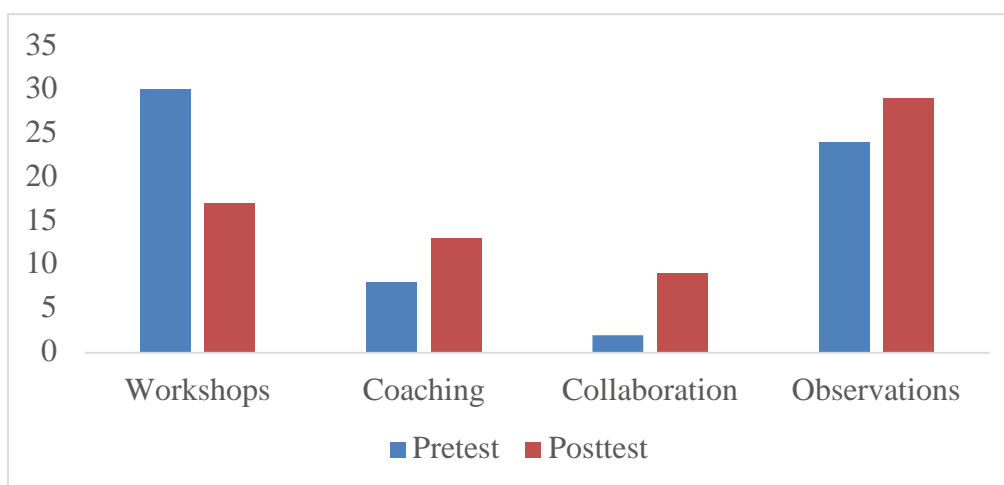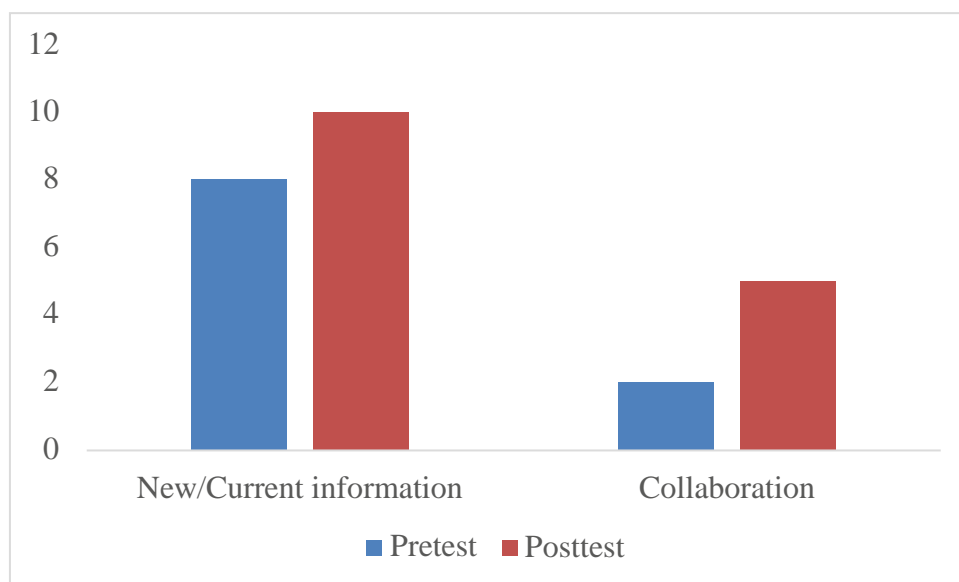
Figure 17. Question 17: This figure illustrates the pretest and posttest responses from Question 17 in the Continuing Professional Development Survey.

Survey Question 18: "If you had the opportunity to develop a professional plan during Monday meetings (1 hour each) which topics would you be interested in learning more about? Check all that apply." Participants were allowed to check as many of the following options as necessary: "Student Engagement," "Instructional Strategies," "Classroom Management," "Differentiation Techniques," "Instructional Rounds," "Growth Mindset," "Specific Programs" or "Other." Participants could write in the "other" response. A histogram of the results is in Table 4.

Table 4

Pretest and Posttest checked responses to Question 18

	Pretest	Posttest
Student Engagement	5	9
Instructional Strategies	8	8
Classroom Management	8	8
Differentiation Techniques	9	8
Instructional Rounds	4	7
Growth Mindset	13	10
Specific Programs	10	12

In addition to the checkbox responses teachers' indicated a desire for an increase of new information or specific program information in their "Other" responses: In the pretest, teachers indicated this desire four times, while the posttest, they indicated this desire eight times.

Survey Questions 19 - 22 gathered demographic information about the participants.

Survey Question 19: "How many years have you been teaching?" Participants responded as follows: 1 - 5, 6 - 10, 11 - 15, 16 - 25, or 26 or more years. None of the participants responded 1- 5 years. A total of 12 of the participants responded 6 - 10 years. Nine of the participants responded 11 - 15 years. Twenty of the participants responded 16 - 25 years, and 12 of the participants responded 26 or more years.

Survey Question 20: "What is your age?" Participants could answer as follows: 25 - 34, 35 - 44, 45 - 54, 55 - 64, 65 - 74, or 75 or older. The survey results indicated that 10 of participants responded 25 - 34. Nineteen of the participants responded 35 - 44. Twenty-three of

the participants responded 45 - 54. Two of the participants responded 55 - 64. One of the participants responded 64 - 74. None of the participants responded 75 or older.

  Survey Question 21: "What age group do you teach?" Participants could respond with the following options: "Elementary (Grades TK-5)" or "Secondary (Grades 6-8)." Sixteen of the participants responded "Elementary (Grades TK-5)." Thirty-two of the participants responded "Secondary (Grades 6-8)."

  Survey Question 22 allowed participants to answer an open-ended question. The question was, "What is the highest level of education you have completed?" The survey results indicated that 11 of participants responded that they had earned a bachelor's degree and teaching credential. Forty-three of the participants responded that they had earned a master's degree. Questions 1 - 13 were compared using the ANOVA data analysis tool. These results are displayed in Table 5.

Table 5

ANOVA comparison

Source of Variation	*SS*	*df*	*Ms*	*F*	*p*-value
Sample (questions)	190.51	12	15.87	19.06	1.153
Columns (pretest vs posttest results)	6.95	1	6.95	8.35	0.00
Interaction	5.55	12	0.46	0.55	0.87
Within	1104.09	1326	0.83		
Total	1307.11	1351			

The *p*-value is >.05. The researcher failed to reject the null hypothesis as there was not a significant difference between the pretest and posttest results. A *t*-test was conducted with each question, which confirmed there was not a significant difference between the pretest and posttest results.

The results of the survey were analyzed using the ANOVA and *t*-test data analyzation tool. The following tables are two-sample individual t-tests assuming equal variance. The *t*-tests all conclude that the variance does not fall into the 95% confidence level and, like the ANOVA results, fails to reject the null hypothesis.

The following Survey Questions 1 - 13 allowed for a forced answer of "Strongly Agree," "Agree," "Undecided," " Disagree," or "Strongly Disagree." Once the ANOVA results were complete, they were then placed in a two-sample individual *t*-test assuming equal variance.

Survey Question 1: "I feel my school's professional development plan is clearly communicated." The survey results indicated that five of the participants answered "Strongly Agree" in the pretest compared to six participants in the posttest. Twenty-one participants answered "Agree" in the pretest compared to 20 in the posttest. Six participants answered "Undecided" compared to seven in the posttest. Sixteen participants answered "Disagree" compared to 16 in the posttest. Four participants answered "Strongly Disagree" compared to three in the posttest.

The results remained fairly consistent in that teachers felt their professional development plan was clearly communicated, while a large number, approximately 26%, of teachers felt that it was not. The *t*-test displayed in Table 5 reports a variance of .025, which is not a significant difference at the 95% confidence level. However, the shift in responses is significant enough to

to encourage the discussion with teachers about how they can be better informed about the

school's professional development plan.

Table 6

Question 1 t-Test

	Pretest	Posttest
Mean	2.86	2.80
Variance	1.41	1.37
Observations	52	52
Pooled Variance	1.39	
Hypothesized Mean Difference	0	
df	102	
t Stat	0.24	
P(T<=t) one-tail	0.40	
t Critical one-tail	1.65	
P(T<=t) two-tail	0.80	
t Critical two-tail	1.98	

Survey Question 2: "My school encourages professional development." The survey

results indicated that 16 participants answered "Strongly Agree" in the pretest compared to 14

participants in the posttest. Twenty participants responded "Agree" in the pretest compared to

29 in the posttest. Twelve participants responded "Undecided" compared to six in the posttest.

Four participants answered "Disagree" compared to three in the posttest. None of the

participants responded "Strongly Disagree" in the pretest nor in the posttest.

The survey results suggest that schools encourage professional development. During the intervention, teachers were given information regarding the purpose of professional development along with the variety of forms professional development can take in a school setting. The variety of forms identified during the intervention included coaching, Instructional Rounds, observations, professional learning communities (PLC'S), and video recordings.

The *t*-test displayed in Table 6 reports a variance of .025, which is not a significant difference at the 95% confidence level. However, the shift in responses is significant enough to to encourage the discussion with teachers about how they can develop professionally and the variety of ways they can grow in the school setting using tools that they may have already been using.

Table 7

Question 2 t-Test

	Pretest	Posttest
Mean	2.1	1.96
Variance	0.86	0.63
Observations	50	51
Pooled Variance	0.75	
Hypothesized Mean Difference	0	
df	99	
t Stat	0.80	
P(T<=t) one-tail	0.21	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.42	
t Critical two-tail	1.98	

Survey Question 3: "Teachers are a part of the planning of professional development opportunities." Nine participants responded "Strongly Agree" in the pretest compared to 11 participants in the posttest. Twenty participants responded "Agree" in the pretest compared to 20 in the posttest. Eight participants responded "Undecided" compared to 7 in the posttest. Eleven participants responded "Disagree" compared to 11 in the posttest. Five participants responded "Strongly Disagree" compared to five in the posttest.

In answering Survey Question 3, most teachers agreed that they have been part of creating and planning professional development opportunities in their schools. However, the

comparison to the responses to Questions 1 and 2 means that there has been a lack of communication in relation to the schools' professional development plan. The *t*-test shown in Table 7 includes the results from Question 3. The results in the *t*-test display an insignificant change in the pretest verses the posttest. The response concludes that that intervention did not provide a shift in the responses of teachers who are included in the planning stages of professional development opportunities for themselves and their colleagues. The *t*-test displayed in Table 8 reports a variance of .025, which is not a significant difference at the 95% confidence level.

Table 8

Question 3 t-Test

	Pretest	Posttest
Mean	2.66	2.52
Variance	1.58	1.49
Observations	51	51
Pooled Variance	1.54	
Hypothesized Mean Difference	0	
df	100	
t Stat	0.55	
P(T<=t) one-tail	0.28	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.57	
t Critical two-tail	1.98	

Survey Question 4: "I feel I can learn from my peers in terms of making my classroom more effective". Twenty-seven participants responded "Strongly Agree" in the pretest compared to 26 participants in the posttest. Twenty participants responded "Agree" in the pretest compared to 25 in the posttest. Three participants responded "Undecided" compared to one in the posttest. Two participants responded "Disagree" compared to zero in the posttest. Zero participants responded "Strongly Disagree" in the pretest and posttest.

The responses from Survey Question 4 revealed an overwhelming response in that teachers do seem to want to learn from their colleagues in making their classrooms more effective. The response is encouraging to administrators in that teachers indicated that they value learning from one another. One administrator responded, "this is eye-opening and I look forward to finding ways to get teachers out more" (anonymous, personal communication, March, 6, 2017). Another administrator responded, "it is great to hear that teachers want to learn from each other; this is great news" (anonymous, personal communication, March 1, 2017).

As shown in the *t*-test in Table 9, the significance level of .025 fails to reject the null hypothesis. However, the results from Question 4 allows educators to step back and examine the overwhelming desire that veteran teachers possess to collaborate with their colleagues.

Table 9

Question 4 t-Test

	Pretest	Posttest
Mean	1.60	1.50
Variance	0.60	0.29
Observations	51	51
Pooled Variance	0.44	
Hypothesized Mean Difference	0	
df	100	
t Stat	0.73	
P(T<=t) one-tail	0.23	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.46	
t Critical two-tail	1.98	

Survey Question 5: "I feel my peers can learn from watching me teach in my classroom." The survey results showed that six participants responded "Strongly Agree" in the pretest compared to eight participants in the posttest. Thirty-nine participants responded "Agree" in the pretest compared to 37 in the posttest. Three participants responded "Undecided" compared to three in the posttest. One participant responded "Disagree" compared to zero in the posttest. Zero participants responded "Strongly Disagree" in the pretest and posttest.

Question 5 is in line with the responses from Question 4. The vast majority of teachers within this study felt that not only can they learn from their peers, but that their peers can learn

from watching them in their classroom. As seen in the literature review, Honigsfeld and Dove

(2010) reported the gain teachers can make when working collaboratively. Specifically, the

authors reported that the co-teaching models can allow teachers to learn from one another during

collaborations and while watching their colleague teach. The *t*-test located in Table 10 indicates

the insignificant variance in the pretest versus the posttest. However, the results in Table 10 are

important in that they allow schools, administrators, and researchers to learn that veteran

teachers welcome collaboration, sharing, and allow for observations from their peers into their

own classroom.

Table 10

Question 5 t-Test

	Pretest	Posttest
Mean	2.15	2.13
Variance	0.77	0.92
Observations	51	51
Pooled Variance	0.84	
Hypothesized Mean Difference	0	
df	100	
t Stat	0.10	
P(T<=t) one-tail	0.45	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.91	
t Critical two-tail	1.98	

Survey Question 6: "I would like to see more peer coaching as a professional development tool in my school." The survey results indicated that six participants answered "Strongly Agree" in the pretest compared to four participants in the posttest. Twenty-four participants responded "Agree" in the pretest compared to 28 in the posttest. Seventeen participants responded "Undecided" compared to 10 in the posttest. Four participants responded "Disagree" compared to three in the posttest. One participant responded "Strongly Disagree" compared to zero in the posttest.

The results of Question 6 indicate that initially teachers were undecided about using peer coaching as a professional development tool. After the intervention, teachers agreed that they would like to see more peer coaching as a professional development tool and moved away from being undecided. During the intervention the peer coaching tool was examined and explained to teachers. Research about the topic of peer coaching was also reported during the intervention.

The *t*-test in Table 11 shows that there is not a significant shift in responses from the pretest to the posttest. However, the information from the Continuing Professional Development Survey give administrators and schools great insight as to the desires and willingness of veteran teachers to learn in a peer-coaching professional learning model.

Table 11

Question 6 t-Test

	Pretest	Posttest
Mean	2.43	2.09
Variance	0.77	0.65
Observations	51	51
Pooled Variance	0.71	
Hypothesized Mean Difference	0	
df	100	
t Stat	1.99	
P(T<=t) one-tail	0.03	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.05	
t Critical two-tail	1.98	

Survey Question 7: "Instructional Rounds is a tool used in many schools to be able to go into colleagues' classrooms and view their teaching. I feel my classroom can benefit from the use of Instructional Rounds as a professional development tool."

Five participants indicated "Strongly Agree" in the pretest compared to 12 participants in the posttest. Twenty-six participants responded "Agree" in the pretest compared to 27 in the posttest. Thirteen participants responded "Undecided" compared to nine in the posttest. Eight participants responded "Disagree" compared to two in the posttest. Zero participants responded "Strongly Disagree" compared to one in the posttest.

The results of Question 7, located in Table 1, indicates that teachers shifted their responses from "Undecided" and "Disagree" to "Agree" and "Strongly Agree" regarding the use of Instructional Rounds as a professional development tool. During the intervention the researcher presented the Instructional Rounds model and its research to the teachers. The change in survey results after the intervention indicates that teachers had a better understanding of the definition of Instructional Rounds, how they are used, and the benefit to helping teachers grow professionally. While not a significant shift, at the 95% confidence level, the shift is enough to encourage administrators to use the intervention as a tool when describing Instructional Rounds and its benefit for professional learning among veteran teachers. As described in the literature review, Terantino & Hoyt (2014) reported on the plethora of benefits that Instructional Rounds can have in the development of instruction.

The change shown in the *t*-test located in Table 12 does not display a significant shift at a 95% confidence level. However, the shift is significant enough convince schools and administrators that giving teacher information about professional development tools such as the Instructional Rounds model can increase teacher understanding. The intervention also allows the administrator to understand the desires and needs of the teachers in the school.

Table 12

Question 7 t-Test

	Pretest	Posttest
Mean	2.47	2.13
Variance	0.77	0.92
Observations	51	51
Pooled Variance	0.84	
Hypothesized Mean Difference	0	
df	100	
t Stat	1.82	
P(T<=t) one-tail	0.03	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.07	
t Critical two-tail	1.98	

Survey Question 8: "I would like the opportunity to help plan and develop professional learning opportunities at my school." Eight of the participants responded "Strongly Agree" in the pretest compared to 10 participants in the posttest. Eighteen participants responded "Agree" in the pretest compared to 21 in the posttest. Fourteen participants responded "Undecided" compared to 13 in the posttest. Eight participants responded "Disagree" compared to seven in the posttest. Four participants responded "Strongly Disagree" compared to one in the posttest.

Question 8 had a varied response from teachers who would like to participate in the planning and developing of professional development opportunities at their school. There was a

shift from "Strongly Disagree" to "Strongly Agree" and "Agree." While the t-test located in

Table 13 does not yield significant changes at the 95% confidence level, the results do indicate

that after the intervention and the review of the importance of teacher participation, the results

had shifted towards a more positive response.

Table 13

Question 8 t-Test

	Pretest	Posttest
Mean	2.68	2.41
Variance	1.29	1.00
Observations	51	51
Pooled Variance	1.15	
Hypothesized Mean Difference	0	
df	100	
t Stat	1.29	
P(T<=t) one-tail	0.09	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.19	
t Critical two-tail	1.98	

Survey Question 9: "I am interested in learning about ways to enhance my classroom."

The survey results indicated that 15 participants answered "Strongly Agree" in the pretest

compared to 26 participants in the posttest. Twenty-five participants answered "Agree" in the

pretest compared to 26 in the posttest. Zero participants answered "Undecided" in the pretest

and posttest. Two participants answered "Disagree" compared to zero in the posttest. Zero

participants answered "Strongly Disagree" in the pretest and posttest.

The results from Question 9 indicate an increased interest in the teachers learning about

ways to enhance their classroom after the intervention. While the *t*-test results in Table 14 do not

show a significant shift at the 95% confidence level, the response to the question along with the

increase of "Agree" and "Strongly Agree" after the intervention can provide schools with

information about their staff and their desires. Also seen after the intervention is a shift the

responses away from the "Disagree" response to "Strongly Agree."

Table 14

Question 9 t-Test

	Pretest	Posttest
Mean	1.58	1.50
Variance	0.48	0.25
Observations	51	51
Pooled Variance	0.37	
Hypothesized Mean Difference	0	
df	100	
t Stat	0.65	
P(T<=t) one-tail	0.25	
t Critical one-tail	1.66	
P(T<=t) *two-tail*	0.51	
t Critical two-tail	1.98	

Survey Question 10: "I readily take what I learn in professional development opportunities and use it in my classroom." Nine participants responded "Strongly Agree" in the pretest compared to nine participants in the posttest. Thirty-two participants responded "Agree" in the pretest compared to 33 in the posttest. Four participants answered "Undecided" compared to four in the posttest. Five participants answered "Disagree" compared to four in the posttest. One participant responded "Strongly Disagree" compared to one in the posttest.

The responses to Question 10 remained relatively consistent according to the *t*-test in Table 15. The results from the pretest and posttest from the Continuing Professional Development Survey indicate that the intervention did not result in a shift in responses to how teachers felt about the professional development opportunities that they have received. The *t*-test in Table 15 does not show a significant shift at the 95% confidence level in a shift of responses in the pretest and the posttest. However, the information gained from the survey question is valuable to administrators when developing a professional development roadmap for their schools.

Table 15

Question 10 t-Test

	Pretest	Posttest
Mean	2.19	2.17
Variance	0.88	0.90
Observations	51	51
Pooled Variance	0.89	
Hypothesized Mean Difference	0	
df	100	
t Stat	0.10	
P(T<=t) one-tail	0.45	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.91	
t Critical two-tail	1.98	

Survey Question 11: "I enjoy speaking and interacting with my school learning community, including, teachers, staff and administrators." Twenty participants responded "Strongly Agree" in the pretest compared to 16 participants in the posttest. Twenty-five participants responded "Agree" in the pretest compared to 30 in the posttest. Four participants responded "Undecided" compared to three in the posttest. Two participants answered "Disagree" compared to three in the posttest. One participant responded "Strongly Disagree" compared to zero in the posttest.

The responses to Question 11 indicate that the teachers want to interact within their schools. The rise in the "Agree" and "Strongly Agree" responses in the posttest indicate that the intervention used in this study led to an understanding of the variety of ways teachers can interact within their learning community. The *t*-test in Table 16 indicates that there is not a significant difference at the 95% confidence level between the pretest and posttest. However, the information from Question 11 is valuable in understanding the teachers' comfort and desire for interaction and collaboration when developing a schools' professional development plan.

Table 16

Question 11 t-Test

	Pretest	Posttest
Mean	1.8	1.86
Variance	0.7	0.60
Observations	51	51
Pooled Variance	0.68	
Hypothesized Mean Difference	0	
df	100	
t Stat	-0.11	
P(T<=t) one-tail	0.45	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.90	
t Critical two-tail	1.98	

Survey Question 12: "I would like to be actively involved in the learning process of teachers in my school." Seven participants responded "Strongly Agree" in the pretest compared to 12 participants in the posttest. Twenty-one participants responded "Agree" in the pretest compared to 22 in the posttest. Fifteen participants responded "Undecided" compared to five in the posttest. Six participants answered "Disagree" compared to three in the posttest. Two participants responded "Strongly Disagree" compared to zero in the posttest.

The responses from Question 12, located in Table 17, indicated that a majority of teachers in this study would like to be actively involved in the learning process of themselves and their colleagues. The shift in responses in the posttest indicates that the information teachers learned during the intervention, about the variety of professional development opportunities, sparked their interest. The shift in the responses from the pretest to the posttest in Question 12 is not significant at the 95% confidence level. However, the responses allow schools and administrators to view the importance of using the intervention before gathering a team of teachers to participate in the development of a school's professional plan.

Table 17

Question 12 t-Test

	Pretest	Posttest
Mean	2.52	2.15
Variance	1.05	0.73
Observations	51	51
Pooled Variance	0.89	
Hypothesized Mean Difference	0	
df	100	
t Stat	1.98	
P(T<=t) one-tail	0.02	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.04	
t Critical two-tail	1.98	

Survey Question 13*:* "I welcome constructive criticism and feedback to help my performance in the classroom." Fifteen participants responded "Strongly Agree" in the pretest compared to eight participants in the posttest. Thirty-three participants responded "Agree" in the pretest compared to 30 in the posttest. Three participants responded "Undecided" compared to four in the posttest. One participant responded "Disagree" compared to zero in the posttest. Zero participants answered "Strongly Disagree" in both the pretest and in the posttest.

While the *t*-test in Table 18 indicates that there is not a significant difference at the 95% confidence level between the pretest and posttest, the information is valuable to schools and

districts when creating a professional development plan for their schools. The lack of shift from the pretest to the posttest also means the intervention used in the study didn't alter the teachers' willingness to welcome constructive criticism and feedback. However, because of the large number of teachers that do welcome criticism and feedback, the information does give insight to administrators and schools so that they can use the strategies in their professional development plans. Senge et al. (2012) reported that a professional development plan should allow teachers to take what they already know and build upon that knowledge when improving their teaching. The use of constructive criticism and feedback can allow teachers to reflect upon their own practice and then explore the different angles of pedagogy (Cheng, 2011).

Table 18

Question 13 t-Test

	Pretest	Posttest
Mean	1.80	1.72
Variance	0.40	0.36
Observations	51	51
Pooled Variance	0.38	
Hypothesized Mean Difference	0	
df	100	
t Stat	0.64	
P(T<=t) one-tail	0.26	
t Critical one-tail	1.66	
P(T<=t) two-tail	0.52	
t Critical two-tail	1.98	

Findings of Qualitative Research

The qualitative research followed the quantitative study results. The questions were then developed with the dissertation committee and used during the one-on-one interviews with school administrators at the elementary and middle school (Appendix F). The results of the quantitative survey were given to the principals (Appendix G). Principals signed a consent form (Appendix F) allowing the researcher to audio record their answers to the following questions during the one-on-one interviews:

1. Given the information about teacher's willingness to learn, how do you think schools can incorporate their willingness into their professional development plan?

2. How do you think collaboration or observations are something that are possible to incorporate in a school's professional development plan?

3. Teachers would like the opportunity to help plan and develop professional learning opportunities. How can schools incorporate this into their professional development plan?

4. Teachers are interested in learning about specific programs? Could professional development plans include programs like CGI and reading strategies? How would we do that?

5. How can you use time and money differently to create the best possible professional development for teachers?

These questions were developed as "follow-up" questions.

1. How many years have you been in education?

2. What has been your experience with professional development for teachers?

3. Do you think the current models of professional development effective?

The responses of the six school administrators' views of employing effective professional development are as follows:

Question 1: "Given the information about teachers' willingness to learn, how do you think schools can incorporate their willingness into their professional development plan." The administrators' responses all included the importance of involving teachers and involving the school leadership team in the planning process. The administrators also discussed having teachers learn from each other as a professional development tool. Table 19 includes the administrators' responses to Question 1.

Table 19

Question 1

	Question 1: *Given the information about teacher's willingness to learn, how do you think schools can incorporate their willingness into their professional development plan?*
Participant 1	Make sure teachers are part of the PD process. Teachers help create the plan and admin supports it. Has to be a buy in. Teachers learn from teachers. Use leaders at the site or TOSA's. Create small amounts of quality time together.
Participant 2	Administration needs to include leadership team or all teachers to determine what the professional development looks like. Teachers can help develop them on their own. Administrators need to differentiate for teachers. Administrators help guide teachers as they get outside of their comfort zone.
Participant 3	Using evidence of their own responses is important. Give the teachers what they are asking and make them part of the process. Teachers need to have an understanding of their own understanding in their teaching.
Participant 4	Get buy in from teachers and have them seek out via survey or feedback. Give teachers what they want. Once they accept it and are willing to learn..
Participant 5	Staffs have seen and done everything. Technology is something that can be used in the classroom. Buy in from the teachers. Finding new things that the veteran staff hasn't seen requires a lot of digging.
Participant 6	Teacher needs to be what they want to learn with what administrators see from a bigger picture. Teachers will need to guide and give input. You can do this by using a leadership team.

Question 2: "How do you think collaboration or observations are something that are possible to incorporate in a school's professional development plan?" The administrators discussed having a school culture of teachers who are used to colleagues walking in and out of the room. The responses also included the importance of allowing for opportunities during the school day so they can have the opportunity to observe each other. Suggestions included paying for teacher release time or the use of preparation time to conduct observations. The responses gathered from Question 2 are included in Table 20.

Table 20

Question 2

Question 2: *How do you think collaboration or observations are possible to incorporate in a school's professional development plan?*

Participant 1   Has to be the culture of the school and expected that people come in and out of the classroom. Teachers know that people are walking in and out. Time to debrief together afterward.

Participant 2   It needs to have a plan and commitment and use funds to provide the release time to do that. It is helpful that there are opportunities for multiple observations and debriefing afterward. Allow teachers to watch someone else teach their own students and the teacher observes their own classroom.

Participant 3   The climate of the school needs to be inviting to have teachers collaborate with each other. Show teachers that principals are learning too. Be a role model to demonstrate collaboration.

Participant 4   Collaboration could be built during release time. Observations are something that teachers can be invited to do by covering substitute cost. Set expectations about what to do when they come back to share with their group.

Participant 5   The school is already doing Instructional Rounds. They enjoy watching each other teach. The new teachers can watch the veteran teachers and vice versa. In collaboration, you need to have the right group together.

Participant 6   Staff meetings can incorporate collaboration via grade level. We have a "spotlight" on a grade. The teachers from the grade levels present on something that is useful to other levels. Creating a culture of collaboration is important.

Question 3: "Teachers would like the opportunity to help plan and develop professional learning opportunities. How can schools incorporate this into their professional development plan?" The responses indicated that the use of the leadership is important. Teachers should be part of developing the school plan and administrators should facilitate the plan. Teachers should also be allowed to attend presentations and reflective conversations after professional development opportunities. The responses to Question 3 are included in Table 21.

Table 21

Question 3

	Question 3: *Teachers would like the opportunity to help plan and develop professional learning opportunities. How can schools incorporate this into their professional development plan?*
Participant 1	Meet w/ leadership team to have them invest in the PD plan. Teachers are not being presented with a plan but they are coming up with it together. Create the space for them to get that done. Administrators guide the process.
Participant 2	Plan for it in advance with leadership team. Provide release time. Use built in collaboration time. Compensate teachers for their time. It takes time to prepare for. Utilize the TOSA's to help guide the discussions. Give teachers the opportunities to attend presentation times so they learn to present to adults. It makes them more receptive.
Participant 3	Teachers complete surveys or reflective opportunities after a professional development.
Participant 4	Include teachers in the planning. Provide opportunities for feedback and allow them to plan. The teachers have to help create the plan moving forward.
Participant 5	We tried it quite a few years ago and had a lead teacher present to the staff and it didn't work. We couldn't get buy in when a teacher was leading the writing across the curriculum. Getting the right group of people together is important.
Participant 6	Teachers help plan the monthly staff meeting. Administrators give the big picture view while teachers help to develop what they see as an area of growth. We offer many optional committees for whoever would like to come.

Question 4: "Teachers are interested in learning about specific programs. Could professional development plans include programs like CGI and reading strategies? How would we do that?" The administrators' responses included having a focus and a plan. Some administrators discussed using a consultant or a teacher on special assignment (TOSA) to assist in the programs. The administrators' responses to Question 4 are included in Table 22.

Table 22

Question 4

	Question 4: Could professional development plans include programs like CGI and reading strategies? How would we do that?
Participant 1	Use TOSA's. Have a focus and not be all over the place. Do it by grade level. Make sure there is follow up.
Participant 2	Excellent place to use a contracted consultant. Observation is huge. Peer coach and consultant are important. Co-teaching is a great way to learn specific programs. Do it enough so it doesn't feel threatening. Co-teachers have to have a good relationship.
Participant 3	Show teachers how everything goes together and works with each other rather than each program separately
Participant 4	Professional development should be broad and not only one specific strategy for delivery. Bring in guest speakers or consultants to the school.
Participant 5	We are looking at changing our discipline matrix. We have a core group of teachers helping create it. That is important. Putting committees together with counselors helps create the buy in if they are a part of it.
Participant 6	Our school was split in half and took 2 days to see a model school for writer's workshop. The second half of the PD was to discuss how to incorporate that into their school. It is important to meet the teacher at their level of understanding. .

Question 5: "How can you use time and money differently to create the best possible professional development for teachers?" The responses indicated that the administrators felt they were doing all that they could to use their money effectively. Administrators felt that if teachers were paid to take on a leadership role, they would rise to the occasion. One administrator felt he or she could look at the limited funds, for example, supplemental funds, and use those funds to pay substitutes and teachers for their time. All of the administrators agreed that the money that they do have is simply not enough. The administrator responses to Question 5 are included in Table 23.

Table 23

Question 5

	Question 5: *How can you use time and money differently to create the best possible professional development for teachers?*
Participant 1	Invest (money) in teachers, continual growth, everything else will fail. Pay teachers to take on the leadership role. Retain good teachers is by growing your veteran teachers.
Participant 2	Look at funds that are more limited and use them better, like supplemental funds. Effective educator funds. Paying substitute and paying teachers for their time. Require everyone to do one thing each year. Use teacher's PE time.
Participant 3	All teachers to work together to help create their own professional development. Allow teachers to observe each other or use Monday release time to get together from other schools. Administrative leadership can help guide teachers. Use school site council as a governing body. Use the school plan to match professional development with intent.
Participant 4	Outside consultants or sending your own staff to trainings to become a trainer. Providing tools and direction that build on programs they have observed or have high interest in things.
Participant 5	The money is just not enough. We sent the whole math department to a conference and it ate up all of my professional development funds. You rarely have enough money to do something at your school. The toughest question because you have to be creative about it.
Participant 6	I would use more planning time and find ways that is not as expensive. Allow for observations during PE time and make it optional. On Mondays, teachers all have the same lunch. We could use more of that time for voluntary professional development.

In the follow-up questions, administrators were asked demographic information.

Question 1: "How many years have you been in education?" The responses indicated the administrators had been in education for 19 to 42 years.

Question 2: "What has been your experience with professional development for teachers?" The responses indicated that the administrators had all been teachers and had taken on roles as leader while teaching. The roles included lead teacher, department chair, and teacher on special assignment.

Question 3: "Do you think the current models of professional development are effective?" The responses from the interviews indicated that the administrator's felt the district is moving in a positive direction and is much better than it once was. While they felt the district is moving forward in the direction of offering effective professional development, most felt that the district still has a long way to go.

The responses from the one-on-one interviews were used to develop themes. The researcher then collaborated with her doctoral cohort group to narrow down the themes. Once the themes were developed, the researcher placed the themes into the NVIVO data analysis tool. Figure 19 was designed with the NVIVO software to display the scaled responses. The boxes that are larger signify that there were more responses for the topic. For example, the box displaying "Teacher Voice" is larger than the "School Climate" box because there were more responses which fell into the topic of "Teacher Voice." Figure 19 allows for a visual representation of the number of responses for each theme.
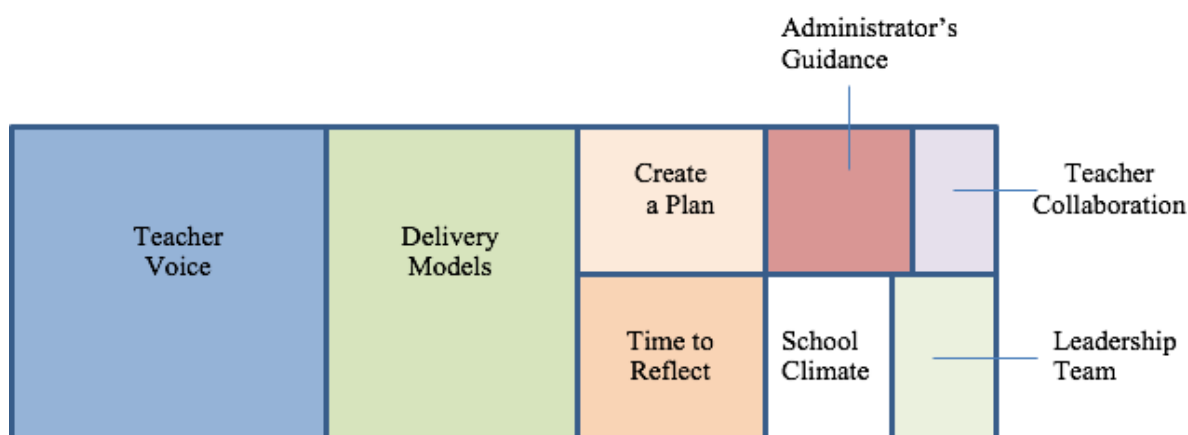
Figure 18. Themes: The scaled responses of each theme from the one-on one interviews.

The researcher, along with five other doctoral cohort members, analyzed the results. The themes that emerged included "teacher voice, delivery models, creating a plan, allowing time to reflect, guidance from the administrator, teacher compensation, school climate, the use of leadership team and investigating in human capital."

The researcher took the themes, which emerged from the doctoral collaboration, and placed the information into the NVIVO qualitative analyzation tool. From the NVIVO tool, eight major themes emerged. The themes include "teacher voice, delivery models, creating a plan, allowing time to reflect, the guidance from administrators, teacher compensation, using a leadership team, and creating a school climate." The researcher took the themes from the NVIVO tool and placed them into a pie chart. Figure 19 displays a scaled visual representation of a pie chart that is broken up into the themes from the study.
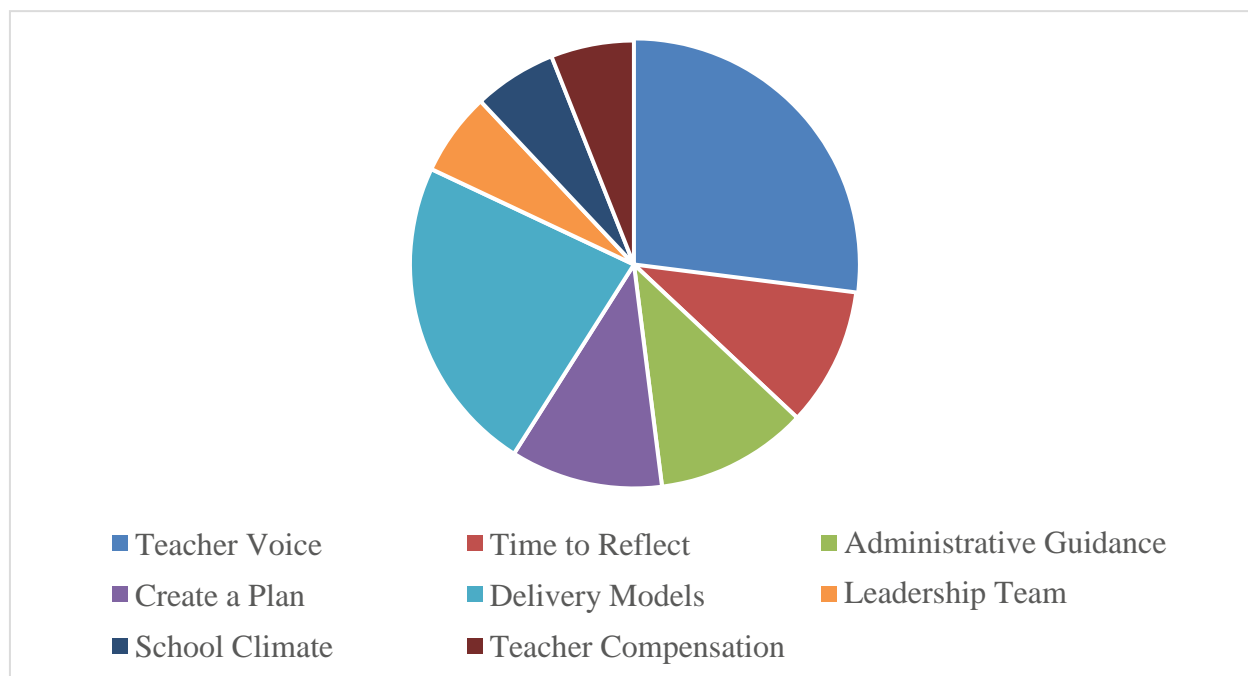
Figure 19. Pie Chart representing the themes created from the administrators' responses.

Summary

This chapter introduced the analysis and statistical tests that were used in the study. The introduction was followed by a detailed analysis of the qualitative survey including descriptions and results of each survey question. The Continuing Professional Development Survey results were analyzed and dissected to determine if an intervention led to a shift of staff responses. The Analysis of Variance (ANOVA) method was used to compare several parameters at once. The mean populations were compared using a *type-1* error with a 95% level of confidence. In addition, a *t*-test was conducted for each question in the survey.

Results from the quantitative research questions revealed the results of one-on-one interviews of elementary and middle school administrators. The results of the quantitative survey were delivered to the administrators to yield reflective practices that could be employed at

the elementary and middle school levels. Figure 21 shares the process the researcher used to
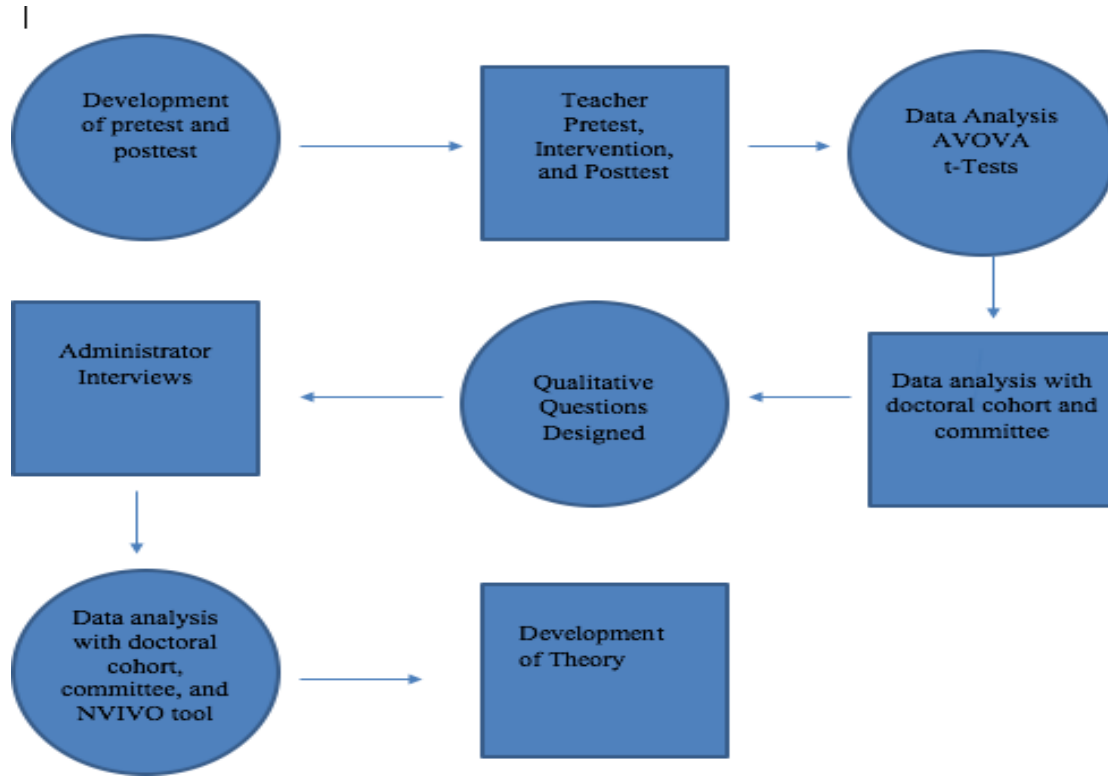
create the theory.

Figure 20. Piktochart which displays the chronological order of the steps taken in the

development of the theory.

The following chapter presents a summary of the study, discussion of the findings,

implications for practice, and recommendations for further research.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter 4 reported the presentation and analysis of data. Chapter 5 consists of the discussion of the findings, implications for practice, recommendations for further research, conclusions, and a summary. The purpose of Chapter 5 is to provide a further understanding of the professional development tools available for veteran teachers, attitudes and willingness for professional development opportunities, and a realistic application in the school setting.

Discussion of Findings

The following Survey Questions 1 - 13 allowed for a forced answer of "Strongly Agree," "Agree," "Undecided," "Disagree" or "Strongly Disagree."

Survey Question 1: "I feel my school's professional development plan is clearly communicated." The results indicate that administrators need to clearly and continually communicate the school's professional development plan to veteran teachers. Communication from administrators to teachers may include a projected roadmap and/or discussions of progress with the professional development plan. In the researcher's experience, most of the time administrators discuss the school's plan with other administrators but fail to include the teachers in the conversation. This may be the case in the responses of the veteran teachers to this particular question.

A majority of teachers feel their professional development plan has not been clearly communicated. A probable reason may be that schools may not have a long-term plan in place. Creating a plan is important in allowing teachers to receive effective professional development. The unique needs of veteran teachers encourage administrators to develop a long-term professional development plan (Antoniou, 2013). Contrary to the results in the Continuing Professional Development Survey results, Rotermund, DeRoche, and Ottem (2017) reported that

"81% of all public school teachers report participating in regularly scheduled collaboration with other teachers in 2011- 12" (p. 8). The data from the Continuing Professional Development *Survey* and research from Rotermund, DeRoche, and Ottem (2017) indicated that while a large percentage of teachers participate in professional development, many do not participate during the planning stage. While teachers move through various stages of development in their career, it is important that they are involved in the construction of the schools' plan (Trotter, 2006).

Researchers Cordingley et al. (2015), and Fullan and Knight (2011), also acknowledged the importance of teacher involvement in the planning and feedback sessions in the professional development of teachers. Ways administrators can communicate the plan with the teachers within a school is to invite all teachers to the beginning planning stages and development of goals. Administrators can continue to discuss stages of the plan and tie back current practices of the plan to teachers. The communication among a school team is important and should be regularly reflected upon to allow for understanding from teachers about specific programs that are, or need to be put in place.

Survey Question 2: "My school encourages professional development." In reviewing the increase of teachers who answered "Agree," an assumption could be made that once the teachers who participated in the survey understood what constituted a professional development opportunity, they found that they had been encouraged to participate. The results in the pretest identified that teachers moved away from the "Undecided" response to the "Agree" response. The shift teacher in responses may have been due to the intervention presentation and the understanding of the teachers allowing them to link the professional development discussion with what is currently occurring at their school site. In discussing the results with the administrators during the one-on-one interviews, the majority of them felt that teachers may have

viewed workshops as the only professional development tool. The administrators felt that the intervention expanded the teachers' notions of the opportunities that they may have otherwise not been exposed to. In comparison to the results of Survey Question 1, it is encouraged that the communication continues to occur with veteran teachers about the school's professional development plan and opportunities for the teachers. It is also important to educate teachers on the variety of tools that can help them grow in the classroom.

Survey Question 3: "Teachers are a part of the planning of professional development opportunities." While most teachers reported that they were part of ongoing professional development opportunities, the communication of the plan may have been lacking. Communication to the school's stakeholders, including teachers, is of utmost importance when developing and carrying out school's professional development plan. Administrators should work with their leadership teams in creating a plan and communicating the plan to the staff. One administrator in the interview responded, "Administrators need to include their leadership team and possibly all of their teachers in the professional development plan" (anonymous, personal communication, March 6, 2017). Although all schools do not have a leadership team, it is important that schools have a group of teachers that administrators can consult with when carrying out the school's plan.

Suggestions for including teachers in the development of the schools' professional development plan include sending out a survey, such as the Continuing Professional Development Survey, to understand the needs and desires of teachers. Administrators should then create a leadership or teacher meeting to create and discuss professional development goals and roadmap. Once goals and the roadmap are determined, administrators should include all teachers in the development of specific strategies to be used with teachers in their professional

learning. "Active engagement in professional learning promotes change in educators' practice" and should be used in the planning stages of their development (Learning Forward, 2011, p. 42).

Survey Question 4: "I feel I can learn from my peers in terms of making my classroom more effective." The overwhelming response to this question is encouraging to all administrators when planning professional development opportunities in their school. All administrators should welcome collaboration as a professional development tool. As seen in the review of literature, collaboration amongst colleagues has been proven to be an effective form of development for teachers (Bruce & Ross, 2008; Croft et al., 2010; Danaher, Price & Kluth, 2009; Wei et al., 2009; Fullan & Knight, 2011; Zan & Donegan-Ritter, 2014). The use of professional learning communities (PLC's) is one collaborative model, discussed in the literature review, proven to be effective in improving the efficacy of educators (DuFour & Fullan, 2013). Collaboration amongst colleagues may include observations of one another's classrooms followed by a debriefing session to discuss best practices. The ongoing support in teacher's professional learning allows for continual improvement (Learning Forward, 2011). Administrators can encourage teachers and allow time for common planning and collaboration within the workday. In comparison to the variety of professional development tools available, collaboration can be less time consuming and more cost-effective. Schools should encourage teachers, as experts in the field of education, to teach and learn from one another.

Survey Question 5: "I feel my peers can learn from watching me teach in my classroom." The responses to Question 5 and Question 4 suggests that teachers would like not only to learn from other teachers but also want teachers to learn through observing their teaching in classroom.

Shaffer and Thomas-Brown (2015) reported that by allowing teachers the time and structure to work collaboratively, each teacher will show gains in their teaching skills. While the co-teaching model can be difficult to implement in a school because of monetary constraints, it is important to note the influence that teachers can have on one another with the use of collaboration and observations. Administrators can use the information from the Continuing Professional Development Survey as a tool when creating a school's professional development plan and in making sure to incorporate time and money to allow for collaboration and observation. The gains can be significant in helping veteran teachers grow and give new insights and ideas for their classroom.

Survey Question 6: "I would like to see more peer coaching as a professional development tool in my school". While teachers were initially unsure about peer coaching when they responded *Undecided* in the pretest, the responses shifted towards a more positive use of peer coaching during their professional learning in their posttest. The shift was due to the intervention tool and the explanation of the benefits of peer coaching. As seen in the literature review, Bruce and Ross (2008) reported that peer coaching allows teachers to overcome the isolation that they may feel in the classroom. With the guidance of peer coaching, teachers can also increase classroom efficacy. Peer coaching, along with the responses from Questions 4 and 5 indicate that coaching, including peer observations, is a tool that teachers would use. One administrator responded, "This is great, veteran teachers can learn from new teachers and new teachers can learn from veteran teachers" (anonymous, personal communication, March 1, 2017). The information from this survey gives great insight to administrators in that teachers are willing to work with a peer coach while learning new strategies. Administrators can use their own staff, as opposed to hiring from outside, to help veteran teachers expand their skills.

Survey Question 7: "Instructional Rounds is a tool used in many schools to be able to go into colleagues' classrooms and view their teaching. I feel my classroom can benefit from the use of Instructional Rounds as a professional development tool." The results of the survey indicate the shift in teachers' perception and understanding of Instructional Rounds as an effective professional development tool. The job-embedded practice allows teachers to observe their colleagues during instruction, and then debrief the practices they observed. The observations and feedback from teacher to teacher allows them to identify evidence-based practices and possibly amend their current practices. The Instructional Rounds model allows teachers to take a step back and observe their own classroom from a different lens (Terentino & Hoyt, 2014). During interviews, an administrator responded, "I can see a shift. I would like to use the PowerPoint with my staff at the beginning of the school year before we create our professional development plan" (anonymous, personal communication, March 13, 2017).

Survey Question 8: "I would like the opportunity to help plan and develop professional learning opportunities at my school." The posttest indicates a shift from teachers who would like to be involved in professional development planning for their school. This is encouraging to all administrators in involving teachers in the process. During an interview, an administrator responded, "Administration needs to include their leadership team and possibly all of their teachers when planning professional development" (anonymous, personal communication, March 6, 2017). It should be noted that the number of teachers who responded *Undecided* was high in both the pretest and posttest. The high responses can be due to a variety of factors which include the lack of time teachers have during the school day to participate in the planning of professional development opportunities. The responses can also indicate that even after the intervention, teachers do not fully understand how the planning and participation of professional

development opportunities can be administered during the school day. Administrators can use the information from the Continuing Professional Development Survey to prioritize and encourage the use veteran teachers' expertise to help plan and develop learning opportunities for themselves and their colleagues. Knowing the desires of teachers, administrators and schools can also find ways in which teachers can participate in the planning without the feeling that they have added one more task to their school day. Allowing teachers to take participate in the development of their professional learning helps build a "community with collective responsibility that increases educator effectiveness" (Learning Forward, 2011, p. 25). Lastly, administrators and schools can create levels of teacher participation so that each veteran teacher's voice is heard at a place that the teacher feels comfortable with.

Survey Question 9: "I am interested in learning about ways to enhance my classroom." The responses from the survey display an increase in the number of teachers who want to learn ways to enhance their classroom. The intervention could have sparked the interest or reminded teachers about the importance and the variety of ways to enhance their classrooms. As reported in the literature review, Knowles (1995) and Mezirow (1994) discussed the importance of the adult learner to find meaning in, and become an equal participant in their own learning. The theorists also reported that as adults learn, they need to be able to relate what they are learning to why they are learning it while reflecting on their own experiences (Knowles, 1995; Mezirow, 1994). Administrators and schools can use the information from the survey to understand that veteran teachers have a high desire to continue to improve their practices. In addition, once the variety of professional development tools are explained, as in the intervention, the desire for a teacher to learn about ways to enhance their classroom increases. When administrators develop their school's professional development plans, it is encouraged that they use a tool such as the

intervention to provide teachers with the knowledge necessary to understand the various forms of professional development opportunities. The teachers and administrators can then develop a plan together and shape how professional development funds, for their site, are spent.

Survey Question 10: "I readily take what I learn in professional development opportunities and use it in my classroom." The responses to Question 10 indicate that the professional development opportunities that the teachers were able to participate in were valuable. In comparing the teacher responses to that of the administrators it is apparent that the school district is moving in the direction of providing teachers with more professional development opportunities. The types of professional development that the teachers received, who participated in the Continuing Professional Development Survey, that resulted in the *Agree* and *Strongly Agree* responses in Question 10 were examined. During the last two- to three-years, teachers participated in subject-specific textbook adoption seminars for the elementary and middle school teachers, and research-based learning strategy seminars for elementary teachers only. The research based strategies used at the elementary school level included the use of cognitively-guided instruction (CGI). Both the textbook adoption seminars and cognitively-guided instruction (CGI) allowed for collaboration and instruction in the teachers' classroom during the school day.

This information gained from the Continuing Professional Development Survey is useful for schools and school districts to understand how their current forms of development impact their teachers and growth in their classrooms. One administrator who viewed the results to Question 10 replied, "This is great news," because he or she felt that his or her school and district was moving in the right direction in relation to professional development for teachers (anonymous, personal communication, March 13, 2017).

Survey Question 11: "I enjoy speaking and interacting with my school learning community, including, teachers, staff, and administrators." The responses from Question 11 indicate that most teachers enjoy interacting with their school community. There was a slight increase in the posttest in the *Agree* response. During the intervention, teachers were able to connect practices like observations, coaching, and professional learning communities to professional development opportunities and current practices within their school. During the qualitative interviews, the administrators were pleased and encouraged that teachers enjoyed the interactions. In addition, administrators and can use the information to seek out those who would like to help shape their learning and work in collaboration with the school community.

Collaboration and open-communication among colleagues have proven to be an effective means of improving the quality of teaching within a classroom (Bruce & Ross, 2008; Croft et al., 2010; Danaher, Price & Kluth, 2009; Wei et al., 2009; Fullan & Knight, 2011; Zan & Donegan-Ritter, 2014). Communication and collaboration about professional development needs should be encouraged and used in a schools' professional development plan. The responses to Question 11 indicates that teachers are willing to work together when planning and developing instructional improvement. The responses to this question also encourages schools and administrators to use tools like professional learning communities (PLC's) and Instructional Rounds in their professional development plans.

Survey Question 12: "I would like to be actively involved in the learning process of teachers in my school." The responses to this question indicate that the majority of teachers want to be actively involved in the professional learning occurring at their school. After using the intervention tool, teachers were able to understand how their involvement could affect their learning community. The intervention also allowed teachers to understand the variety of ways

they can participate in the learning process of teachers at their school. Finally, the intervention increased teachers' willingness to participate in the planning of the schools' professional development plan, which in turn will create greater success of the plan.

When gathering teachers to participate in developing professional development opportunities, it is important that the intervention is reviewed so that teachers are not only more willing to become involved, but also understand how their involvement effects the learning of themselves and their colleagues. As examined in the literature review, the theories of Knowles (1995) and Merriam (2008) indicated that teachers will experience greater success if they are involved in the planning of their own learning. Trotter (2006) also supported Knowles and Merriam in their theories and reported that allowing teachers to determine the direction of their professional learning will lead to greater outcomes.

Survey Question 13: "I welcome constructive criticism and feedback to help my performance in the classroom." The responses to this question remained fairly consistent although there was a slight decrease in the *Agree* response in the pretest versus the posttest. This suggests that the intervention did not provide teachers with the information necessary to welcome constructive criticism and feedback as part of their professional learning. Administrators could use the results from the Continuing Professional Development Survey to expand the intervention and allow for a better understanding of how observations, peer coaching, and, most importantly, feedback and debriefing opportunities during the professional development of veteran teachers can be beneficial. The Standards for Professional Learning suggests that collaboration and constructive feedback are important in the professional learning of educators (Learning Forward, 2011). One tool allowing for constructive criticism and feedback is the use of the Instructional Rounds model. Both the coaching and the Instructional

Rounds model of professional development consist of classroom observations followed by time to debrief, which is important to all professional development models.

The Survey Questions 14 - 17 allowed participants to answer open-ended questions. The results yielded the following:

Survey question number 14: "What type(s) of professional development do you feel is needed for a veteran teacher? For example, coaching, observing other teachers, attending workshops, etc." The pretest indicated that 30 teachers had the desire to attend workshops; however, the posttest indicated only 17 teacher responses. The responses desiring coaching went from eight in the pretest to 13 responses in the posttest. In the pretest, the desire for collaboration increased from two responses in the pretest to nine responses in the posttest. In the pretest, the responses indicated 24 teachers have a desire to observe one another; however, 29 teachers indicated such in the posttest. Moreover, the pretest indicated that only one teacher was interested learning about new research and programs; however, the posttest indicated increased to four teacher responses.

The results from the survey question indicate that teachers in this study initially felt that workshops were one of the only tools available for professional development. As the results shifted away from workshops and increased in collaboration and observations, teachers were able to understand the pros and cons of the variety of professional development tools. The intervention provided teachers with the necessary information to understand what constitutes a meaningful professional development opportunity. The research behind each method sparked the interest of teachers in their desire to try new and research-based approaches to improve their practice. During the intervention, teachers also learned the research behind attending workshops as a professional development tool and then shift their desires to different and more beneficial

tools. It encourages to administrators that teachers gained interest in observing one another as a result of the information presented in the intervention tool. The researcher suggests that administrators use the intervention tool prior to using the survey with their staff and developing a roadmap for the school.

Survey Question 15: "What tools do you feel will help you identify areas of growth in your classroom?" The survey responses changed in the area of observations and feedback from eight to 21 responses and from zero to nine responses in collaboration. It is clear, after viewing the intervention presentation, that teachers learned the research behind and importance of observation and feedback in their own classrooms. The intervention tool allowed for a shift in the desire for teachers to include observations and feedback as part of their professional development roadmaps. The researcher recommends that administrators use the information from the intervention to guide teachers in understanding tools available to them for their professional growth. Administrators can then use the results from the survey as a base for creating a plan with their leadership teams to include the elements of observation and feedback in the professional learning opportunities in their schools.

Survey Question 16: "What type of tools do you feel you need to help you learn and improve in your own classroom" The survey responses in collaboration remained the same with 10 responses. The results in the area of *Observation* and *Feedback* remained the same with seven responses. The lack of shift in the results was surprising when looking at the survey as a whole. The expectation in looking at the previous survey questions is that collaboration and observation would have increased in response. However, the intervention did not provide a shift in responses when teachers were asked to list the tools they needed. The researcher suggests eliminating this question from the Continuing Professional Development Survey as it may have

been a redundant question in relation to the previous questions. The responses from Questions 14 and 15 provide enough information for administrators to work with their leadership teams in creating a professional development roadmap for their schools.

Survey Question 17: "What type of information is valuable for the veteran teacher to enhance learning?" The responses increased to learn new or important information on current research from eight to 10 responses. The tool of collaboration also increased from two to five responses.

The responses from this question were surprising, yet encouraging, to administrators during the interviews. The administrators were encouraged by the responses which indicated that veteran teachers are interested in learning new research and techniques and are not interested in being stagnant, as may be assumed, in their classrooms. Suggestions for using this information is understanding the types of research teachers are interested in and making sure to include that information in the teachers' monthly staff meetings. Administrators could present the information during the meetings and allow the teachers to collaborate with their colleagues on ways they could use the information in their classrooms. It is important that administrators allow time for the sharing and of ideas as well as follow-up opportunities to discuss how the information was used in the classrooms.

Survey 18: "If you had the opportunity to develop a professional plan during Monday meetings (1 hour each), which topics would you be interested in learning more about? Check all that apply." *Participants* were allowed to respond with more than one answer of "Student Engagement, Instructional Strategies, Classroom Management, Differentiation Techniques, Instructional Rounds, Growth Mindset, Specific Programs or Other." Participants had the option to write in the "Other" response. The results are listed in Table 19.

Table 24

Question 18

	Pretest	Posttest
Student Engagement	5	9
Instructional Strategies	8	8
Classroom management	8	8
Differentiation techniques	9	8
Instructional Rounds	4	7
Growth Mindset	13	10
Specific Programs	10	12

In addition to the checkbox responses teachers increase of new information or specific program information listed in the "Other" section increased from four to eight responses.

The results from Question 18 revealed that veteran teachers are interested in learning about student engagement and classroom management strategies. One may assume that a veteran teacher is well versed in the area of student engagement and classroom management after teaching for a minimum of five years. While the teacher's strategies in classroom management and student engagement may be well developed, the information from the Continuing Professional Development Survey reports that teachers want to continue to learn in those areas. The information is important to administrators while creating professional development opportunities that address teacher's interest, including student engagement and classroom management techniques. Before the results from the survey, an administrator may not have thought that veteran teachers had a desire to learn additional engagement and management

strategies. This is apparent during the qualitative interview portion of the research study. Specifically, one administrator stated that he or she now understood that, "It is important to survey the teachers throughout the year to learn about what is important to them, in terms of professional development" (anonymous, personal Communication, March 1, 2017). It should also be noted that the responses indicated an increase in Instructional Rounds after the intervention presentation. This indicates that once teachers learn about the effectiveness of Instructional Rounds, they were interested in learning more about the technique.

Survey Questions 19 - 22 gathered demographic information about the participants. Survey Question 19: "How many years have you been teaching?" Participants could answer: 1 - 5, 6 - 10, 11 - 15, 16 - 25, or 26 or more. The survey results indicate that none of participants responded "1 - 5 years." A total of 12 of the participants responded "6 - 10 years." Nine of the participants responded "11 - 15 years." Twenty of the participants responded 16 - 25 years, and 12 of the participants responded "26 or more years."

The results indicate that all teachers who participated in the survey were veteran teachers who have taught for more than five years. The majority of the participants in the survey have been teaching more than 16 years. This information is encouraging to schools and administrators in learning that teachers who have been in the classroom for many years and have become comfortable in their career, are interested in continuing to grow in their profession. As reported by Fuller and Brown (1975), during a teacher's first years of teaching they are learning the foundation for educating children. Antoniou (2013) relates teachers who are beyond their fifth year of teaching as all being in the same teaching stage. It is in these stages, as teachers move forward in their career, that they then develop more advanced skills and learn through social interactions and collaboration with their colleagues (Cheng, 2011). When administrators plan

their schools' roadmap it is important that they understand the importance of the teachers' career stage as reported by Fuller and Brown so that the professional development opportunities match the teachers' needs.

Survey Question 20: "What is your age?" Participants could answer: 25 - 34, 35 - 44, 45 - 54, 55 - 64, 65 - 74, or 75 or older. The survey results indicated that 10 of participants responded 25 - 34. Nineteen of the participants responded "35 - 44." Twenty-three of the participants responded "45 - 54." Two of the participants responded "55 - 64." One of the participants responded "64 - 74." None of the participants responded "75 or older."

The majority of the responses indicate that the veteran teachers utilized in the study were 35 years of age or older. This, along with the information from the previous questions, may indicate that the veteran teachers have been out of school for many years and are ready to learn new information about teaching. Understanding a teacher's stage in their teaching career when developing a professional development plan for the school is important. Teaching stage for a teacher who is beyond their fifth year of teaching requires different professional development tools than novice teachers (Antoniou, 2013). While administrators plan the professional roadmap for teachers, it is important that they examine the age theory researched by Dewey (1963) and Trotter (2006). The authors suggested that adults in their late thirties and early forties are interested in the membership and collaboration in their school community. After examining the results from the Continuing Professional Development Survey, administrators can develop strategies that fit the teacher's stage of development. Suggestions include allowing for opportunities for building relationships with colleagues, as well as allow time for discussions and reflections. The results from Questions 19 and 20 can allow all administrators to use both age and career stage of teachers when developing programs for their staff.

Survey Question 21: "What age group do you teach? Participants could respond with the following options: Elementary (Grades TK-5) or Secondary (Grades 6-8). Sixteen of the participants responded Elementary (Grades TK-5)." Thirty-two of the participants responded "Secondary (grades 6-8)."

It is important to note in the survey responses that the majority of the participants were from the middle school level. While the job requirements of an elementary teacher and a secondary teacher are different, the results from the Continuing Professional Development Survey may be more representative of the secondary school setting.

Survey question 22 allowed participants to answer an open-ended question. The question, "What is the highest level of education you have completed?" The survey results indicated that five of participants responded "bachelor's degree and credential." Forty-three of the participants responded "master's degree." It is clear that the veteran teachers are well educated, and value their own personal learning. While obtaining a master's degree is not required for any teacher to teach, the veteran teachers chose to continue learning in their profession. Administrators can use this information in understanding that most teachers obtain a graduate degree and therefore may require a higher-level inquiry and depth of knowledge during professional development opportunities.

Questions 1 - 13 were compared using the ANOVA data analysis tool located in Table 25.

Table 25

ANOVA Questions 1 - 13

Source of Variation	SS	df	Ms	F	P-value	F crit
Sample						
(questions)	190.51	12	15.87	19.06	1.15	1.75
Columns (pretest vs posttest results)	6.95	1	6.95	8.35	0.00	3.84
				0.55	0.87	1.75
Interaction	5.55	12	0.46			
Within	1104.03	1326	0.83			
Total	1307.11	1351				

The *p*-value is greater than .05, which fails to reject the null hypothesis as there is not a significant difference between the pretest and posttest results. A *t*-test was conducted and described in Chapter 4, which confirmed, that there is not a significant difference between the pretest and posttest results. Again, while there was not a significant difference at the 95% confidence level, once dissected, each response displayed a difference enough to encourage school administrators to move forward with the intervention tool before developing a professional development plan.

The following responses of the six school administrators' view of employing effective professional include Question 1 "Given the information about teacher's willingness to learn, how do you think schools can incorporate their willingness into their professional development plan?"

The administrator's responses all included the importance of involving teachers and the school leadership team in the planning process. The administrators also discussed having teachers learn from each other as a professional development tool.

The administrators were pleasantly surprised by the results of the survey. They were encouraged by the willingness of the veteran teachers to grow in their classrooms. While all of the administrators felt that they include veteran teachers in the planning stages, the information further solidified the importance of including veteran teachers in the process. Administrators should continue to develop their site leadership teams and include them in the planning phases of their professional development roadmap. If a school does not have a group of lead teachers, it is recommended that the school develop one to help guide and provide a voice for teachers.

Question 2: "How do you think collaboration or observations are something that are possible to incorporate in a school's professional development plan?" The interview responses discussed having a school culture of teachers who are used to colleagues walking in and out of the classroom. The responses also indicated the importance of allowing for opportunities, during the school day to allow teachers to observe each other. Suggestions included paying for teacher release time or using preparation time to conduct observations.

Collaboration and observations can be great opportunities for the professional growth of veteran teachers. Unfortunately, the time for collaboration and observations may not always be present. Also, the cost of teacher release time to observe and collaborate may be a hindering factor in allowing the practice to occur. However, in comparison to sending a teacher to a workshop, allowing time for observations and collaboration, with the guidance of school leadership teams and administrators, are most cost-effective. In addition, research indicates that professional development is most effective when it provides active learning such as observations

and collaboration (Rotermund et al., 2017). Other tools that administrators can use as collaborative models include Instructional Rounds and peer-coaching opportunities. Schools and teachers should be encouraged to work together and allow teachers to learn from each other's expertise.

Question 3: "Teachers would like the opportunity to help plan and develop professional learning opportunities. How can schools incorporate this into their professional development plan?" The responses indicated that the use of the leadership is necessary. Teachers should be part of developing the school plan and administrators should facilitate the plan. Teachers should also be allowed to attend presentations and collaboratively reflect after the professional development activity.

During the interviews, the administrators were encouraged to hear about the overwhelming responses from the Continuing Professional Development Survey. The administrators reported they plan to include teachers in their schools' professional development roadmap. Each administrator also discussed the importance of their leadership team and that they all had a team of teachers who they use to consult with when trying anything new. However, how each school uses their teacher teams and leadership team varies from school to school. Some of the administrators meet with their leadership team once a month while others don't meet at all and use them on a consultation basis. While the administrators all agree that it is important that schools use their leadership teams to help develop learning opportunities for veteran teachers, it is important that the leadership teams do meet regularly to establish and guide the professional development plan for veteran teachers. When including the leadership team in the planning phases of professional development, it is important that the teachers in the team are representative of the schools' teachers as a whole. In addition, it is recommended that, while

working with the leadership teams, administrators find ways such as surveys, to include the voice of the entire team of teachers.

Question 4: "Teachers are interested in learning about specific programs? Could professional development plans include programs like CGI and reading strategies? How would we do that?" The administrators' responses included having a focus and a plan. Some administrators discussed using a consultant or a teacher on special assignment (TOSA) to assist in the programs.

The reality is that administrators cannot possibly know each of the specific programs that teachers need for growth. Using resources like consultants and teachers on special assignment are excellent tools to build research-based strategies with teachers. Although it is the role of the administrator to facilitate the interactions of the program including the follow-up and follow through, it is important not to leave it solely up to the consultant or teacher on special assignment. A recommendation that the researcher used at her school site is to allow teachers to sign up to become specialists of specific strategies including cognitively-guided instruction (CGI) and reading. The group of teachers were then in charge of relaying information and presenting to the entire teacher team. In having teachers present to their colleagues, the staff related the information to their school and students and had comfort in knowing that they have someone within their own school setting to use as a resource.

Question 5: "How can you use time and money differently to create the best possible professional development for teachers?" The responses indicated that the administrators felt they were doing all that they could to use their money effectively. Administrators felt that if teachers are paid to take on a leadership role they will rise to the occasion. One administrator felt that he or she could look at the limited funds, for example, supplemental funds, and use those to pay

substitutes and teachers for their time. All of the administrators agreed that the money that they have is simply not enough.

This question was worded in a way that the researcher sensed resistance from the administrators. Administrators felt that they were doing the best that they could with their funds and the restrictions and limitations of funds were what limited the professional development opportunities. Suggestions for schools and administrators include finding what teachers are interested in learning and brining the costs and opportunities to the teachers to allow them to have a voice in how site money can be spent on professional learning.

In the follow-up questions, administrators were asked demographic information including: "How many years have you been in education? What has been your experience with professional development for teachers? Do you think the current models of professional development effective?" The administrators had all been in education for at least 19 years with each administrator having been a teacher at one point in his or her career. In creating a professional development plan for veteran teachers, it is important that administrators who guide the plan had been teachers themselves. From their own experience, administrators understood the commitment of the job as well as the time restrictions that teachers face during the school day.

Administrators felt that the current professional development model was moving in the right direction, but there was still much improvement to be made. One interviewee stated, "I like the direction we are moving in but am surprised it took this long to adjust. We just need more money to implement it correctly" (anonymous, personal communication, March 13, 2017). Allocating additional funds for professional development for veteran teachers, guiding administrators so schools can provide ample opportunities to staff for professional development,

and providing administrators with the tools to help facilitate professional development plans at their school sites are some improvements that could be made.

Answers to Research Questions

Question 1: "What are the tools and coaching models for professional development for veteran teachers?"

The findings from research Question 1 indicate that teachers would like, and are willing, to grow professionally. Once teachers were given information about the variety of tools available to them, they expressed interest in not only wanting to learn, but also participating in planning and structuring of professional development activities for their school.

Delivery models for professional development for the veteran teacher include the use of observation and collaboration. It is evident in this case study that teachers feel they can learn by watching others, as well as others, learning from watching them in the classroom. As revealed in the literature review, schools are able to use a variety of strategies to incorporate observation and collaboration. Knight (2014) discussed the use of video cameras to allow teachers, and their coach or mentor, to collaborate on strengths and improvements that could be made in the classrooms. Knight also discussed the use of Instructional Rounds as a collaboration and observational tool. In the Continuing Professional Development Survey teachers welcomed the use of Instructional Rounds format to learn from their colleagues. The use of collaboration and observation in a teacher's classroom supports the theory from Wei et al. (2009) in that effective professional development is embedded into the school day and focuses on teachers as learners.

DuFour and Fullan (2013) discussed creating professional learning communities to allow teachers to observe and collaborate with each other. Not only would creating collaborative groups help build individual learning, it also increases the collective capacity of the group

(DuFour & Fullan, 2013). Once teachers observe each other, discussions towards a common goal allows the team to improve instruction in their classroom. The professional learning communities model creates a form of collaborative coaching within a school team.

Instructional coaching is seen as effective, as measured by the Continuing Professional Development Survey and literature review. Teachers felt that coaching could help guide them to improve in their classroom. Fullan and Knight (2011) agree and reported that coaches can be a change agent in schools for veteran teachers. The teachers in this study felt they were open to criticism, yet felt they can learn from their peers. The instructional coaching models can offer teachers time to collaborate, while using a coach, and receive feedback for their own classrooms.

As reviewed through the qualitative and quantitative survey results, administrators play a crucial role in professional development among veteran teachers. "Principals can demonstrate, and model, learning" is what an administrator reported during an interview (anonymous, personal communication, March 7, 2017). Elementary and secondary administrators felt, with the voice of the teachers, the role of the administrator should be to help guide the process. As supported by Fullan and Knight (2014), without the support of administrators in helping plan and support the coaching and professional development process, no matter which strategies are put into place, maximum results will not be achieved.

Question 2: "How can veteran teachers be supported to grow professionally"
The results from the research indicated that veteran teachers would like to be supported to grow professionally using delivery models such as coaching and collaborative methods which include Instructional Rounds, coaching models, observation, and collaboration time amongst teachers. Along with teachers' desires in the survey, and researcher Nishimura (2014), professional

development needs to be individualized to a school's need and embedded into the daily lives of teachers.

The qualitative interviews discussed the importance between the school climate and culture to allow for change and improvement. The role of the administrator is to set the expectations that enable everyone, including the administrator, to continue to grow. The administrators, along with Cheng (2011), discussed the importance of building trust and relationships among the learning organization. A group of teachers need to be included in creating the framework and roadmap for professional learning in the school.

The urgency of professional development among veteran teachers should also be noted. As mentioned by Day, Sammons, Kington, and Gu (2007), teachers who are more experienced are at greater risk of not only losing their effectiveness but also their commitment to teaching. With the desire to learn more and collaborate, administrators in schools should see developing and maintaining veteran teachers' effectiveness at the forefront of what they do each day.

This study also revealed that schools have used delivery models including collaboration among novice and veteran teachers as a tool for professional learning. An administrator in the qualitative interviews suggested that he or she had seen veteran teachers learn from novice teachers and vice versa. Ponte and Twomsey (2016) also supported the notion that benefits exist when novice teachers are paired with veteran teachers because it allows both teachers to step outside of their classrooms and see what others are doing. The pairing also allows for new perspectives and ideas to emerge.

In addition to delivery models, Standards for Professional Learning (2017) identified four prerequisites for effective professional learning. These prerequisite include the following: the need of commitment from teachers to their students, the involvement of each educator in

professional learning including the commitment to come to ready to inquire knowledge, participation in collaborative inquiry and collective performance, and the understanding that educators learn in different ways and at different rates (Standards for Professional Learning, 2017).

Supporting veteran teachers to grow professionally should be a top priority for all schools. The researcher suggests that school administrators begin by using an intervention, such as the PowerPoint, used in this study to give teachers knowledge of the tools that are available to them. Second, the researcher suggests that school administrators create or use a leadership team to assist in creating a multi-year professional learning plan with strategies that will be put in place. Administrators need to include ways to receive feedback throughout the progression of the roadmap. Lastly, it is important that the roadmap remain fluid so that adjustments can occur as necessary to provide optimal opportunities for veteran teachers.

Implications for Practice

In examining effective professional development for veteran teachers, the qualitative and quantitative results yielded the following themes: teachers would like to be included in the planning and development of professional development for themselves and their fellow teachers; their voice is of utmost importance. Also, teachers and administrators agree that the delivery models used during professional learning are important to gain the greatest benefit to teachers. Effective delivery models of professional learning include the following: observation, collaboration, coaching, and time to debrief.

The findings of this study imply that while there is not a significant difference, at a 95% confidence level, between the pretest and posttest, there exists a difference in the teachers' understanding and willingness to participate in professional development after the intervention

was conducted. The information provided from the survey questions can also assist administrators in understanding the desires of veteran teachers in regards to their professional learning. Teachers have an overwhelming desire to continue learning in their profession as seen from the results of Question 9. Teachers want to observe and debrief with each other to improve their practices. Teachers also enjoy speaking and interacting with their school learning community, as seen from the results of Question 11. Lastly, teachers are interested in learning the most up-to-date research and information in education.

In Question 2 there was an increase in the number of teachers who responded that they felt their school encourages professional development. This could mean the intervention provided teachers with the knowledge of what effective professional development tools look like. In the pretest teachers felt that professional development was mostly in the form of workshops and presentations. After the survey, teachers were able to understand that planned collaboration and observations can help them grow in the classroom. In applying this information to practice, it is suggested that before creating a professional development plan, administrators review the variety of professional development tools, along with the adult learning theory, with teachers.

In Question 4 and 5, the number of teachers who felt they could learn from their peers and their peers could learn from them is eye-opening. The data is encouraging to schools and administrators when developing professional learning opportunities. Schools can incorporate co-teaching and observations in their professional development plan and at a low cost to school districts. While many districts look for outside consultants or workshops to build their schools' capacity, administrators should consider looking from within the existing school's talent as a

way to grow. The same theme is seen in Questions 6 and 7. Teachers are interested in Instructional Rounds, peer coaching, and observations.

Questions 8 - 13 inquired about the involvement of teachers in the planning and developing of professional learning along with the interest of enhancing their classroom. The results indicated that most teachers want to learn about ways to improve their classrooms and would like to plan the activities to build their professional knowledge. The majority of teachers welcome feedback and constructive criticism. Teachers also indicated that they have a desire to be involved in the learning process of the school.

The responses from Question 14 indicated a drop in teachers' desire to attend workshops as a professional development tool. The posttest indicated an increase in the desire for coaching, collaboration, and observations. The researcher's assumption is that before the intervention, teachers felt the only form of professional development was attending one-time workshops. Once adult learning theory and the review of the variety of tools that could be used for professional development was discussed, teachers recognized other forms of inquiry as being useful to help them grow in their profession.

Another interesting discovery from the survey included the results from Question 18 and the topics teachers were interested in for their professional development. Veteran teachers reported that they were interested in student engagement, instructional strategies, classroom management, differentiation techniques, Instructional Rounds, and specific programs. Some of these topics may come to a surprise to administrators as many feel veteran teachers are not interested in the areas of student engagement and differentiation techniques. It is suggested when developing a professional development plan, schools not overlook said topics as areas of growth for veteran teachers.

Administrators play a major role in supporting and fostering the time and space for teachers to continue to grow. The study revealed that for teachers to take the most from professional development opportunities they need to participate in creating the roadmap. The administrators interviewed agreed that for professional learning to be effective teachers need to participate in the planning process. The professional development topics need to come from the teachers' desire to learn more about specific content while having the opportunity to view their colleagues' best practices in the classroom. Ideas of including teachers in the roadmap planning include using a school's leadership team alongside the learning desires of the schools' teachers in professional learning activities.

The administrators discussed the importance of school culture and climate as a necessity before beginning any type of professional development plan. The administrators shared that creating an environment of continuous learning should be central to every school. Many administrators shared how they have tried to incorporate a climate of learning among the adults at their school site. Examples of a supportive climate include being present in classrooms, encouraging teachers, and allowing for continuous open dialogue about teacher growth.

Different than the responses from the teachers, administrators discussed bringing in a consultant to help lead professional development activities. One administrator commented, "The culture of the school should be that teachers are used to learning from each other and going in each other's classrooms" (anonymous, personal communication, March 13, 2017). Another administrator mentioned that he or she isn't good at planning and being creative. He or she would like someone brought in from the outside. As a whole, the administration reported the importance of the delivery models to make professional development useful for veteran teachers.

Delivery models discussed by the administrators included observations, Instructional Rounds, and collaboration.

In asking administrators how they could use funds differently to create the best professional development, many felt like they were already using their money as best as they could. The researcher felt that this question may have elicited a defensive response in that they were not currently doing enough with their staff. The suggestion for future research would include modifying the question slightly and eliminating the term "differently." The question could be changed to include, "Given this information, would you change how you are currently using your funds? If so, how would you change it?"

The responses from administrators about their experience with professional development were as the researcher was expecting. The administrators felt as if the current forms of professional learning are making progress towards being more effective. In a few responses, they felt as if previous and current practices were a waste of time. One administrator stated, "I hated professional development as a teacher. It was always a waste of my time" (anonymous, personal communication, March 17, 2017). Administrators can use their own negative experiences with professional development to ensure a better use of time when developing their school's plan.

The district in which the study was conducted has recently, in the last five years, changed from having virtually no opportunities for professional development to creating a department in charge of professional learning. Again the responses, were as predicted by the researcher, in that the professional development opportunities have been better but can still improve. One administrator shared that he or she relies on the district administration to assist in professional development for his or her own school.

In the review of the literature, time and time again it is seen that the workshop one-shot approach has not been effective. Instead, schools need to have a roadmap, with follow-up, and opportunities for continuous growth. Research supports moving away from workshops as "they may not necessarily be the most effective because of their short duration and because they are removed in time from practice or implementation of the ideas contained in the workshop" (Rotermund, DeRoche & Otterm, 2017, p. 2).

As administrators plan professional learning for teachers, adult development must be taken into consideration. Understanding that adults are lifelong learners is important (Dewey, 1963; Trotter 2006). While adult learning allows them to correlate culture and context in their community, it is important to allow teachers to further develop their instructional skills by allowing for social interactions among colleagues (Cheng, 2011; Trotter, 2006). Veteran teachers learn best from observations and discussions with their colleagues. The social interactions allow the veteran teachers to take what they already know and relate it to their colleagues and community to foster their skills. In addition, as teachers move along in their stages of teaching skills, professional development opportunities should reflect the career stage that a teacher is in (Antoniou, 2013). Understanding a teacher's career stage, and planning accordingly, will allow for a better understanding of effective and continuous learning by veteran teachers (Cordingley et al., 2015).

Recommendations for Further Research

Recommendations for further research include expanding the quantitative and qualitative research to more schools in a variety of populations based on student achievement. This will generalize the results to a larger population and indicate the variety of the tools that veteran teachers are interested in to grow professionally. Expanding the research will also provide

schools with a better indication of how administrators can provide veteran teachers with accepted opportunities for professional growth.

Additional recommendations for further research can include conducting the qualitative and quantitative research to novice and veteran teachers. A statistical analysis can be conducted to compare the novice and veteran group of teachers' responses to the Continuing Professional Development Survey. The information from the comparison of the two groups can further solidify the difference in professional development activities needed and desired between novice and veteran teachers.

Conclusions

Many significant findings have resulted from this research. While not a significant shift in the results between the pretest and posttest at the 95% confidence level, the results indicated that teachers do want to learn and that they are interested in being a part of expanding their with the guidance and support of their administrators. knowledge. In addition, the results from the pretest and posttest revealed that teachers broadened their view of professional development delivery models from one-time workshops to a variety of models including observation and collaborative opportunities.

When the results from the Continuing Professional Development Survey were presented to administrators in the qualitative research, each administrator was taken aback by the desire of teachers to continue their professional learning and the delivery tools teachers are interested in using. The results from the survey encouraged administrators to develop a long-term plan for professional learning that includes teachers in the planning process.

In examining effective professional development for veteran teachers, the qualitative and quantitative results indicated that teachers would like to be involved in the planning and

development of professional learning for themselves and their fellow colleagues. When administrators create a professional development plan for their schools the teachers' voice is of utmost importance. Administrators should use teachers and leadership teams to create a roadmap of what the schools' professional learning goal should be. Teachers should also be included in the planning and timeline of the ongoing professional development.

Teachers and administrators agreed that the delivery models used during professional development are imperative to the learning of teachers. The delivery models that teachers are interested in using include observation, collaboration, coaching, and time to debrief. It is important for teachers to take part in the planning of the delivery models

Summary

Chapter 5 discussed the findings, implications for practice, recommendations for further research, and conclusions. In the findings, it is clear that veteran teachers would like to participate in professional development opportunities to help them grow in their profession. While the intervention did not yield a significant shift in responses from the pretest to the posttest at the 95% confidence level, the intervention did display a positive shift of responses in the understanding of professional learning by teachers. The shift in the responses is beneficial to administrators in learning the desires and attitudes of veteran teachers. Veteran teachers would like to be a part of the planning of the professional development roadmap and activities. The tools that veteran teachers would like to use include observations, collaboration, peer coaching, and time to reflect with one another. Veteran teachers indicated that they can learn from one another in creating a more effective classroom.

The findings from the Continuing Professional Development Survey allowed administrators to reflect upon their own practices as they strive to create a roadmap for a

professional learning plan for veteran teachers. The administrators were encouraged by the results of the survey and indicated that they would use the information in their programs. As schools and students continue to evolve, professional development for veteran teachers must continue to be developed. Administrators, with the voice and assistance of the veteran teachers, need to create a roadmap with continual reflection and refinement to meet the needs of the school.

REFERENCES

A User's Guide to Peer Assistance and Review. (n.d.). (2016, August 25). Retrieved from

http://www.gse.harvard.edu/~ngt/par/parinfo/.

Antoniou, P. (2013). A longitudinal study investigating relations between stages of

effective teaching, teaching experience, and teacher professional development

approaches. *Journal of Classroom Interaction*, *48*(2), 25 - 40.

Bayar, A. (2014). The components of effective professional development activities in

terms of teachers' perspective. *International Online Journal of Educational Sciences*,

6(2), 319-327. doi:10.15345/iojes.2014.02.006.

Beginning Teacher Support and Assessment Induction. (2017, January 19). Retrieved

from http://www.btsa.ca.gov/default.html.

Belay, S. (2016). The contribution of teachers' continuous professional development (CPD)

program to quality of education and its teacher-related challenging factors at Changi

primary schools. Awi Zone, Ethiopia. *Online Submission*, *4*(3), 218 - 225.

Bruce, C. D., & Ross, J. A. (2008). A model for increasing reform implementation and

teacher efficacy: Teacher peer coaching in Grades 3 and 6 mathematics. *Canadian

Journal of Education*, *31*(2), 346 - 370.

California Department of Education (CDE). (n.d.). (2016, March 23). Class Size Reduction (K-

3). Retrieved from http://www.cde.ca.gov/re/pr/csrk3.asp.

Cheng E. (2011). Management strategies for promoting teacher collective learning.

US-China Education Review 8(1), 33 - 45.

Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus

on Exceptional Children*, *28*(3), 1 - 16.

Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B., Coe, R.

(2015). *Developing great teaching: Lessons from the international reviews into effective*

professional development [Research report]. Retrieved from Teacher Development Trust

Website: http://tdtrust.org/about/dgt

Costa, A. L., & Garmston, R. J. (2015). Check your gauges: Calibrating conversations

assist teachers in fine-tuning instruction. *Journal of Staff Development*, *36*(1), 44 – 47.

Costa, A. & Garmston R. (2017). Cognitive coaching: a strategy for reflective teaching.

Retrieved from http://www.erhvervscoach.com/dok/cognitive-coaching-costa-garmston-

p-90-95.pdf.

Cox, E. (2015). Coaching and adult learning: theory and practice. *New directions for adult &*

continuing education, *2015*(148), 27-38. doi:10.1002/ace.20149.

Creswell, J., (2013). Qualitative inquiry & research design: Choosing among five approaches.

CA: Sage Publications.

Croft, A., Coggshall, J. G., Dolan, M., & Powers, E. (2010). Job-Embedded Professional

Development: What It Is, Who Is Responsible, and How to Get It Done Well. Issue

Brief. *National Comprehensive Center for Teacher Quality*.

Cross, J. (2012). Lasting legacy for achievement: Colorado coaches boost teacher

effectiveness with a rubric for professional learning. *Journal of Staff Development*,

33(5), 36 - 44.

Danaher, S., Price, J., & Kluth, P. (2009). Come to the fair! *Educational Leadership*, *66*(5), 70 –

72.

Day, C., & Gu, Q. (2009). Veteran Teachers: Commitment, Resilience and Quality Retention.

Teachers and Teaching: Theory And Practice, *15*(4), 441-457.

Day, C. (2007). *Teachers Matter: Connecting Work, Lives and Effectiveness*. Maidenhead:

    McGraw-Hill Education.

Dewey, J. (1963). Experience and education. New York: Collier.

DuFour R., and Fullan, M., (2013). Cultures built to last: Systemic plcs at work.

    Bloomington, IN: Solution Tree Press.

Fullan, M., & Knight, J. (2011). Coaches as system leaders. *Educational*

    Leadership, *69*(2), 50 - 53, 441 - 447.

Fuller, F., & Brown, O. (1975). Becoming a teacher in K. Ryan (ed.). *Teacher Education.*

    74th Yearbook of National Society for the Study of Education. Part 2. 25 - 52. Chicago:

    University of Chicago Press.

Fuller, F., Parsons, J., & Watkins, J., (1973). Concerns of teachers: research and

    reconceptualization. Austin: Research and Development Center for Teacher Education,

    The University of Texas at Austin.

Gemeda, F. T., & Tynjälä, P. (2015). Professional learning of teachers in Ethiopia:

    Challenges and implications for reform. *Australian Journal of Teacher Education, 40*(5).

    Retrieved from: http://ro.ecu.edu.au/ajte/vol40/iss5/1.

Gerber, A. (1991). *Synergy, holistic education and R. Buckminster Fuller: Education for a*

    world in transformation. Retrieved from ERIC

    database: http://files.eric.ed.gov/fulltext/ED367593.pdf

Hall, L. & McKeen, R. L., (1991). Peer coaching as an organization development intervention

    in the public schools. *Education*, *111*(4), 553 - 558.

Heineke, S. F. (2009). Reading coaching discourse: Practical applications. *CEDER*

    Yearbook, 113 - 129.

Holm, J., & Kajander, A. (2015). Lessons learned about effective professional

development: Two contrasting case studies. *International Journal of Education in

Mathematics, Science and Technology*, *3*(4), 262 – 274.

Honigsfeld, A., & Dove, M. G. (2010). *Collaboration and co-teaching: Strategies for English

learners*. Thousand Oaks, CA: Corwin.

Jepsen, C., & Rivkin, S. (2002). Class size reduction, teacher quality, and academic achievement

in California public elementary schools. *Public Policy Institute of California*. Retrieved

from: http://edsource.org/wp-content/uploads/old/r_602cjr.pdf.

Kazempour, M., & Amirshokoohi, A. (2014). Transitioning to inquiry-based teaching:

exploring science teachers' professional development experiences. *International Journal

of Environmental & Science Education*, *6*(3), 285 - 301. doi:10.12973/ijese.2014.216a

Kelly, J., & Cherkowski, S. (2015). Collaboration, collegiality, and collective reflection: A case

study of professional development for teachers. *Canadian Journal of Educational

Administration and Policy*. Retrieved from ERIC database:

http://eric.ed.gov/?id=EJ1063374.

Klinge, C. M. (2015). A conceptual framework for mentoring in a learning

Organization. *Adult Learning*, *26*(4), 160 - 166. doi:10.1177/1045159515594154

Knight, J. (2014). What you learn when you see yourself teach. *Educational

Leadership*, *71* (8), 18 - 23.

Knight, J., Elford, M., Hock, M., Dunekack, D., Bradley, B., Deshler, D. D., & Knight,

D. (2015). 3 steps to great coaching: A simple but powerful instructional coaching cycle

nets results. *Journal of Staff Development*, *36*(1), 10 - 12.

Knowles, M. (1995). *Designs for adult learning: Practical resources, exercises, and course outlines form the father of adult learning.* Alexandria, VA: American Society for Training and Development.

Learning Forward (2011). *Standards for professional learning.* Oxford, OH.

Lloyd, C. M., & Modlin, E. L. (2012). Coaching as a key component in teachers' professional development: Improving classroom practices in Head Start settings. OPRE Report 2012-4. *Administration for Children & Families*.

Lopez-Real, F. & Kwan, T. (2005). Mentors' perceptions of their own professional development during mentoring. *Journal of Education for teaching: International research and pedagogy, 31*(1), 15 - 24.

Lunenberg F. & Irby, B., (2008). *Writing a successful thesis or dissertation: Tips and strategies for students in the social and behavioral sciences.* CA: Corwin Press.

Matsumura, L. C., Garnier, H. E., Correnti, R., Junker, B., & Bickel, D. D. (2010) Investigating the effectiveness of a comprehensive literacy coaching program in schools with a high teacher mobility. *Elementary School Journal*, *111*(1), 35 - 62.

Merriam, S. (2008). Adult learning theory for the twenty-first century. *New directions for adult and continuing education 2008(11),* 93 - 98. doi: 10.1002/ace.309.

Mezirow, J. (1994). Understanding transformation theory. *Adult Education Quarterly*, *44*(1), 222 - 232.

Miles, R., Van Tryon, P. J. S., & Mensah, F. M. (2015). Mathematics and science teachers' professional development with local businesses to introduce middle and high school students to opportunities in STEM careers. *Science Educator*, *24*(1), 1 – 11.

Mirci, P. S., & Hensley, P. A. (2010). Leading for innovative practice: Melding theories

of organizational change, adult learning, and conditions of learning. *Educational

Leadership and Administration: Teaching and Program Development*, *22*(1), 9 - 30.

Nishimura, T. (2014). Effective professional development of teachers: A guide to

actualizing inclusive schooling. *International Journal of Whole Schooling*, *10*(1), 19 -

42.

Onchwari, G., & Keengwe, J. (2008). The impact of a mentor-coaching model on

teacher professional development. *Early Childhood Education Journal*, *36*(1), 19 - 24.

doi:10.1007/s10643-007-0233-0

Polly, D., Mraz, M., & Algozzine, R. (2013). Implications for developing and

researching elementary school mathematics coaches. *School Science & Mathematics*,

Education Policy Analysis Archives, *113* (6), 297 - 307. doi:10.1111/ssm.12029

Ponte, E. & Twomsey, S. (2016). Veteran teachers mentoring in training: Negotiating

issues of power, vulnerability and professional development. *Journal of Education for

Teaching*, 40 (1), 22 - 33. doi:10.1080/02607476.2013.864015.

Reinke, W., Stormont, M., Herman, K., & Newcomer, L. (2014). Using coaching to

support teacher implementation of classroom-based interventions. *Journal of

Behavioral Education*, *23* (1), 150 - 167. doi:10.1007/s10864-013-9186-0

Rotermund, S., DeRoche, J., & Ottem, R. (2017). Teacher Professional Development by Selected

Teacher and School Characteristics: 2011-12. [Stats in Brief]. NCES 2017-200. *National

Center for Education Statistics*. Retrieved from:

https://nces.ed.gov/pubs2017/2017200.pdf.

Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2012).

 Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who

 cares about education. New York: Doubleday.

Shaffer, L., & Thomas-Brown, K. (2015). Enhancing teacher competency through co-

 teaching and embedded professional development. *Journal of Education and Training*

 Studies, *3*(3), 117 – 125.

Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational*

 Leadership, *53* (6), 12 – 17.

Simpson, T., Hastings W., & Hill, B. (2007). I knew that she was watching me': The

 professional benefits of mentoring. *Teachers and Teaching*, 13(5), 481 - 498.

Sprinthall, R. C. (2012). Basic statistical analysis (9th ed.). Boston: Allyn & Bacon.

Standards for Professional Learning: Quick reference guide. (2017). Retrieved from:

 https://learningforward.org/docs/pdf/standardsreferenceguide.pdf?sfvrsn=0

Terantino, J., & Hoyt, K. (2014). Leading Instructional Rounds in education: A facilitator's

 guide. *International Review of Education / Internationale Zeitschrift Für*

 Erziehungswissenschaft, *60*(2), 291 - 293. doi:10.1007/s11159-014-9418-0

Toll, C. A. (2005). *The literacy coach's survival guide: Essential Questions*

 and practical answers. Newark, DE: International Reading Association.

Trotter, Y. D. (2006). Adult learning theories: Impacting professional development programs.

 Delta Kappa Gamma Bulletin, *72*(2), 8-13.

Tweedell, C. B. (2000). *A Theory of Adult Learning and Implications for Practice.* [Report].

 Retrieved from ERIC database: http://files.eric.ed.gov/fulltext/ED446702.pdf.

Quattlebaum, S. (2012). Why professional development for teachers is critical. (2012,

July 26). Retrieved from http://evolllution.com/opinions/why-professional-development-

for-teachers-is-critical/.

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009).

Professional Learning in the Learning Profession: A Status Report on Teacher

Development in the US and Abroad. National Staff Development Council. [Technical

Report]. Retrieved from ERIC database: https://eric.ed.gov/?id=ED504168

Williams, B. (2001). *Adult learning theory: The mentoring connection.* [Report]. Retrieved

from ERIC database: http://files.eric.ed.gov/fulltext/ED450101.pdf.

Woulfin, S. L. (2014). Charting the research on the policies and politics of coaching. *Education*

policy analysis archives, *22(1)*, 50.

Zan, B., & Donegan-Ritter, M. (2014). Reflecting, coaching and mentoring to enhance

teacher-child interactions in head start classrooms. *Early Childhood Education Journal*,

42(2), 93 - 104. doi:10.1007/s10643-013-0592-7

Zimmerman, J. (2006). Why some teachers resist change and what principals can do

about it. *NASSP Bulletin*, *90*(3), 238 - 249. doi:10.1177/012636506291521.

APPENDIX A

Continuing Professional Development Survey

Continuing Professional Development Survey

Continuing Professional Development Opportunities

With the growing emphasis on student performance and change in state standards, teachers are left with the task of learning new content while raising achievement for all students. A variety of professional development opportunities are needed to help teachers with the task of the rapidly changing state and federal mandates. This survey will focus on veteran teachers and their specific needs for professional development in the K-8 school setting. The results of this survey will help plan and create meaningful continuing professional development opportunities for veteran teachers.

Directions: This survey should take approximately 8-10 minutes to complete. Your response and time is greatly appreciated. Please click on the circle to the left of your answer. Click Next to move to the next page and Submit once complete. Thank you.

1. I feel my school's professional development plan is clearly communicated.

◯ Strongly Agree

◯ Agree

◯ Undecided

◯ Disagree

◯ Strongly Disagree

2. My school encourages professional development.

◯ Strongly Agree

◯ Agree

◯ Undecided

◯ Disagree

◯ Strongly Disagree

3. Teachers are a part of the planning of professional development opportunities.

◯ Strongly Agree

◯ Agree

◯ Undecided

◯ Disagree

◯ Strongly Disagree

4. I feel I can learn from my peers in terms of making my classroom more effective.

○ Strongly Agree

○ Agree

○ Undecided

○ Disagree

○ Strongly Disagree

5. I feel my peers can learn from watching me teach in my classroom.

○ Strongly agree

○ agree

○ disagree

○ Strongly disagree

○ Undecided

6. I would like to see more peer coaching as a professional development tool in my school.

○ Strongly Agree

○ Agree

○ Undecided

○ Disagree

○ Strongly Disagree

7. Instructional Rounds is a tool used in many schools to be able to go into colleague's classrooms and view their teaching.
I feel my classroom can benefit from the use of Instructional Rounds as a professional development tool.

○ Strongly Agree

○ Agree

○ Undecided

○ Disagree

○ Strongly Disagree

8. I would like the opportunity to help plan and develop professional learning opportunities at my school.

○ Strongly Agree

○ Agree

○ Undecided

○ Disagree

○ Strongly Disagree

Continuing Professional Development Survey

Learning

9. I am interested in learning about ways to enhance my classroom.

○ Strongly agree

○ agree

○ undecided

○ disagree

○ strongly disagree

10. I readily take what I learn in professional development opportunities and use it in my classroom.

○ Strongly agree

○ agree

○ undecided

○ disagree

○ strongly disagree

11. I enjoy speaking and interacting with my school learning community, including, teachers, staff and administrators.

○ Strongly agree

○ agree

○ undecided

○ disagree

○ strongly disagree

12. I would like to be actively involved in the learning process of teachers in my school.

○ Strongly agree
○ agree
○ undecided
○ disagree
○ strongly disagree

13. I welcome constructive criticism and feedback to help my performance in the classroom.

○ Strongly agree
○ agree
○ undecided
○ disagree
○ strongly disagree

Continuing Professional Development Survey

Tools and Ideas

14. What type(s) of professional development do you feel is needed for a veteran teacher? For example, coaching, observing other teachers, attending workshops, etc.

[_____]

15. What tools do you feel will help you identify areas of growth in your classroom?

[_____]

16. What type of tools do you feel you need to help you learn and improve in your own classroom?

[_____]

17. What type of information is valuable for the veteran teacher to enhance learning?

[_____]

18. If you had the opportunity to develop a professional development plan for 10 Monday meetings (1 hour each), which topics would you be interested in learning more about? Check all that apply.

☐ Student engagement
☐ Instructional Strategies
☐ Classroom management
☐ Differentiation techniques
☐ Instructional Rounds
☐ Growth Mindset
☐ Specific Programs (Daily 5, Ready Reading, etc.)

Other (please specify)
[_____]

Continuing Professional Development Survey

Demographic Information

19. How many years have you been teaching?

○ 1-5
○ 6-10
○ 11-15
○ 16-25
○ 26+

20. What is your age?

○ 25 to 34
○ 35 to 44
○ 45 to 54
○ 55 to 64
○ 65 to 74
○ 75 or older

21. What age group do you teach?

◯ Elementary (grades TK-5)

◯ Secondary (grades 6-8)

22. What is the highest level of education you have completed?

APPENDIX B

Intervention PowerPoint

Androgogy and Professional Development

January 23, 2016

Salvatrice Kuykendall

Purpose of the study

- Professional development opportunities are continually led by school districts. The problem then becomes; what type of professional development is offered to veteran teachers to help keep their skills sharpened? As an educator, there is a lack of professional development available which tailored to veteran teachers.

- Quai-experimental study
  - Qualitative
  - Quantitative

Professional Development Tools to Enhance the Abilities of Veteran Teachers in Pre-K through Eighth Grades

- Research Questions:
  - What are the current tools and coaching models available as professional development for veteran teachers?
  - How can veteran teachers be supported to grow professionally?
- Confidentiality
- National Institute of Health
- Scribe
- How does this benefit you?

What will we do with this?

- Professional development for veteran teachers is important as teachers grow in depth and breadth of teaching pedagogy.
- Novice teachers learn the basics of teaching including classroom management, organization tools and learning how to teach to the class.
- Once a teacher learns the "basics" of teaching they are ready to move on to becoming an effective in their classroom.
- The purpose of this research study is to analyze a variety of professional development tools, as measured by surveys and multiple observations, which are considered useful for veteran teachers.
- The professional development opportunities will be examined for academic value in the classroom, deemed relevant for the teacher, transformative for the students, and up to date with what is expected from the New California State Standards.
- The research will also give insight to school districts so they can develop effective professional development tools for veteran teachers.

Andragogy

- Definition: Theory and practice of educating adults
- Classic researcher, Knowles (1995) discussed andragogy as:
  - how adults learn
  - adults' need to know
  - self-concept
  - experience
  - readiness to learn
  - orientation to learning
  - motivation

Professional Development

- Definition: **professional development** may be used in reference to a wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers, and other educators improve their professional knowledge, competence, skill, and effectiveness.
- Do we see any of the andragogy theories in our professional development opportunities?

Hidden curriculum (2014, August 26). In S. Abbott (Ed.), The glossary of education reform. Retrieved from http://edglossary.org/hidden-curriculum

Forms of PD

- Mentor Coaching
- Content Focused Coaching (CTC)
- Instructional Rounds
- Observation
- PLC's
- Video Recordings

Research tells us about each type of PD

- Job-embedded
- Ongoing
- Focused on learning and learners
- Collaborative
- Reflective in practice
- Grounded in adult learning theories

Research tells us...

- Teacher isolation has been a consistent problem, as it impedes the development and growth of teachers (Hall and McKeen).
- Adults bring a variety of experiences that should be used for leading change; adults have a need to be able to direct themselves in their readiness to learn (Knowles).
- Transformative learning allows adults to derive meaning from their own experiences (Mezirow, 1994). Adults justify their beliefs by experience.
- Adult will change when provided with evidence that, in fact, they need to change (Mirci & Hensley, 2011).
- Bayer (2014) reports that effective professional development should match teacher and school needs, involve teachers in the design/planning of the activities, allow for active participation of teachers, allow for long-term engagement, and high-quality facilitators and instructors

More research...

- Fullan and Knight (2011) report that coaches are a crucial agent of change in a school.
- Teacher beliefs about their ability to have a positive impact on student learning and achievement increased with the peer-coaching model.
- Onchwari and Keengwe (2008) tell us that development that is embedded into everyday work allows access to the latest knowledge about teaching and learning.
- The instructional coaching model helps veteran teachers, who are constantly renewing and reviewing, learn additional strategies for their own classroom.
- Knight (2014) believes using video cameras in the classroom allows teachers to recognize effective teaching practices and can help teachers and coaches use the video as a part of the coaching process.

Even more research...

- Miles, van Tryon, & Mensah, 2015) discuss the professional development model which incorporates Problem-Based Learning (PBL) as a hands-on learning tool for teachers while learning about the STEM concepts.
- DuFour and Fullan (2013) introduce professional learning communities (PLC's) as a means of continual professional development for schools and districts.

How can Adult Learning Theory help guide PD?

Qualitative Research

Next Steps: Administrators

Questions:
- Given the information about teacher's willingness to learn, how do you think schools can incorporate their desire into their professional development plan?

- Do you think peer coaching or instructional rounds are something that are possible to incorporate in schools?
- How can schools use the teacher's desire to help plan professional learning opportunities to guide administrators in developing further opportunities for teachers?

- Teachers are interested in learning ways to enhance their classroom, how do you think, realistically, this is able to happen in schools?

- Learning about the tools teachers feel they may need to improve their classrooms, how do you think schools can effectively support and provide those tools?

Thank you!

APPENDIX C

NIH Certificate

Certificate of Completion

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

Date of completion: 06/02/2016.

Certification Number: 2087667.

APPENDIX D

IRB Approval

INSTITUTIONAL REVIEW BOARD DECISION

Exempt Review 45 CFR 46.101 Expedited Review 45 CFR 46.110 Full Board Review 45 CFR 46

Review Date	2/14/2017
IRB#	3178
Title of Project	Professional Development Tools to Enhance the Abilities of Veteran Teachers in Pre-K through Eighth Grades
Researcher/s	Salvatrice Kuykendall

APPROVED Effective duration of IRB Approval: 2/14/2017 to 2/13/2018

Your expedited IRB application has been approved. The consent form submitted is expected to be modified and used with all the participants involved in this study.

For Exempt Approved, Please Note: *while your project is exempt from providing Informed Consent information to the IRB, your project must still obtain participants' informed consent.* **For Expedited and Full Board Approved, Please Note**: *a. The IRB's approval is only for the project protocol named above. Any changes are subject to review and approval by the IRB.*

Any adverse events must be reported to the IRB. An annual report or report upon completion is required for each project. If the project is to continue beyond the twelve month period, a request for continuation of approval should be made in writing. Any deviations from the approved protocol should be noted.

NEEDS REVISION AND RESUBMISSION

NOT APPROVED

Printed Name IRB Reviewer

Blanca Quiroz   Signature of IRB Reviewer

APPENDIX E

Notes from the Intervention

1) Pre-Survey

- About 3-5 minutes to fill out

2) Present:
Purpose of study
- Explain what defines a veteran teacher?
- Explain how findings are going to be used at other grade levels
- Explain research question was studied...
- How did the process happen – explain what licenses, certificates were needed...

What will we do with this?
- Explain needs of novice teachers and veteran teachers and who they're different
- There is nothing like "BTSA" for veteran teachers

Andragogy
- Definition – what is it?
- Highlight the necessity of andragogy
- Present research from Knowles

Professional Development
- Asks: "Have there been any opportunities for andragogy in our school and district?"

Forms of PD
- Go over the various forms
- Share what kind of PDs we've been presented with at PVIS and PVPUSD
- PLC – Professional Learning Community: Collaborate and Reflect

Research tells us about each type of PD
- Explain the benefits and lack thereof of one day PD

Research tells us...
- Explain research found
- Adults will change when they feel they need to change... :-/
  o Emphasized due to current necessity to change in PVPUSD.

More Research...
- Crucialness of the peer coaching model

Even more research...
- Problem based learning module – what it is, have we seen it?

How can Adult Learning Theory Help Guide PD?
- Reflect on question

Qualitative Research
- Next steps
- Dispel the myth of veteran teachers not wanting to change their ways
- R. Corwin clarify Instructional Rounds process and how we are only on the "observation stage" of Instructional Rounds process

3) Post Test
- About 3-5 minutes to fill out

APPENDIX F

Qualitative Questions and Procedures for Administrators

Procedure:

1) Give administrator confidentiality form. Allow time to examine.
2) Turn on audiotape

Salvatrice: I'm going to ask you 5 questions. I will give you each question one at a time so that you have a visual of the questions. Please consider your school when answering the questions.

I ran an Analysis of Variance, also called an ANOVA. The results showed that there was no significant difference between the answers in the pre and posttest. However, there were differences. (Hand over copy of each question w/chart).

Qualitative questions stemming from survey results:

6. Given the information about teacher's willingness to learn, how do you think schools can incorporate their willingness into their professional development plan?
7. How do you think collaboration or observations are something that are possible to incorporate in a school's professional development plan?
8. Teachers would like the opportunity to help plan and develop professional learning opportunities. How can schools incorporate this into their professional development plan?
9. Teachers are interested in learning about specific programs? Could professional development plans include programs like CGI and reading strategies? How would we do that?
10. How can you use time and money differently to create the best possible professional development for teachers?
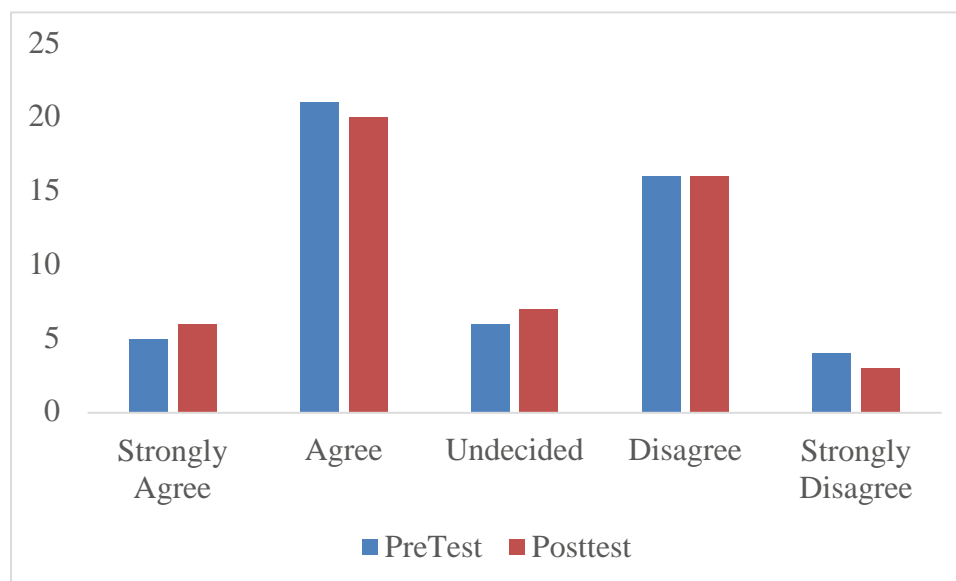
<u>Follow-up questions:</u>

4. How many years have you been in education?

5. What has been your experience with professional development for teachers?

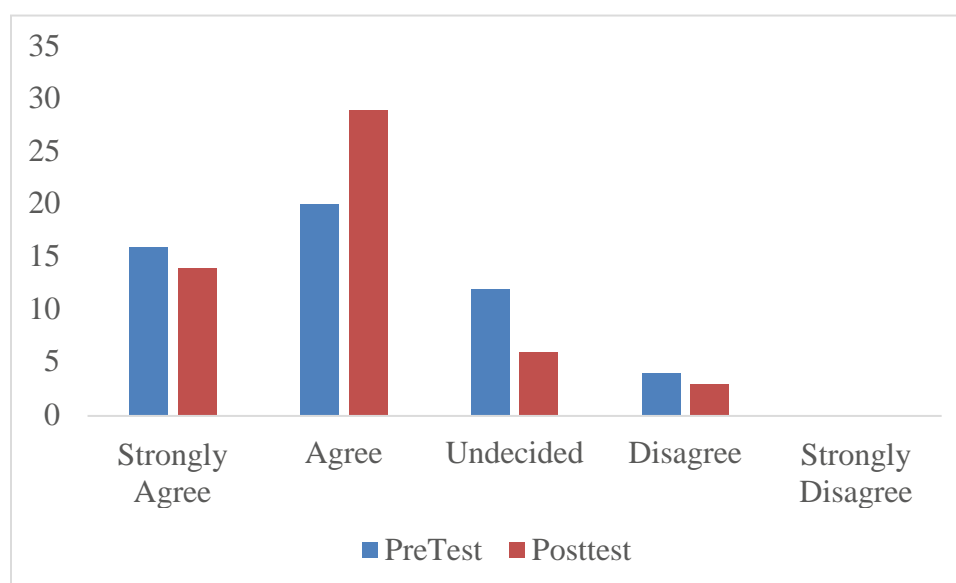6. Do you think the current models of professional development effective?

APPENDIX G

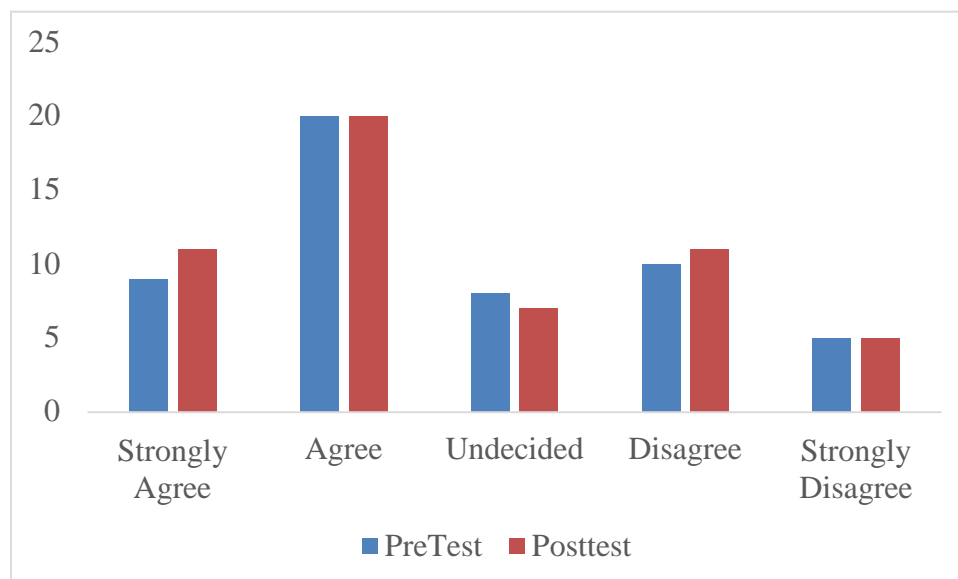Results from the Continuing Professional Development Survey

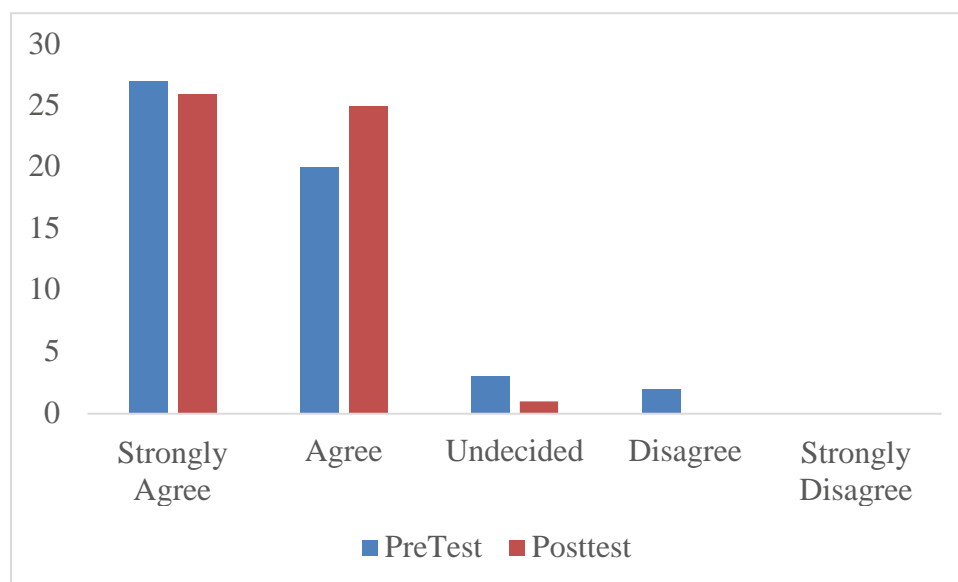*1.* I feel my school's professional development plan is clearly communicated.

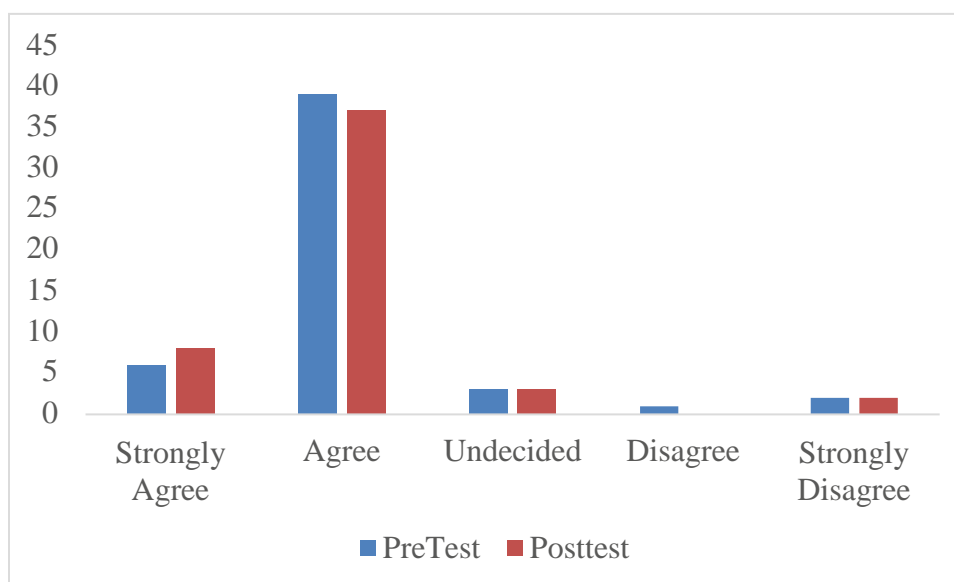*2.* My school encourages professional development.

3. Teachers are a part of the planning of professional development opportunities.
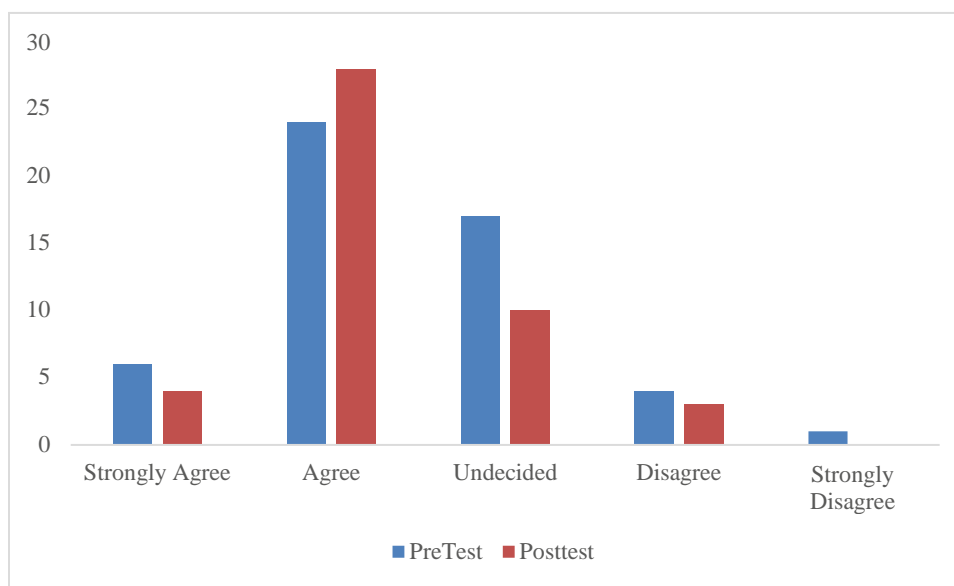

4. I feel I can learn from my peers in terms of making my classroom more effective.
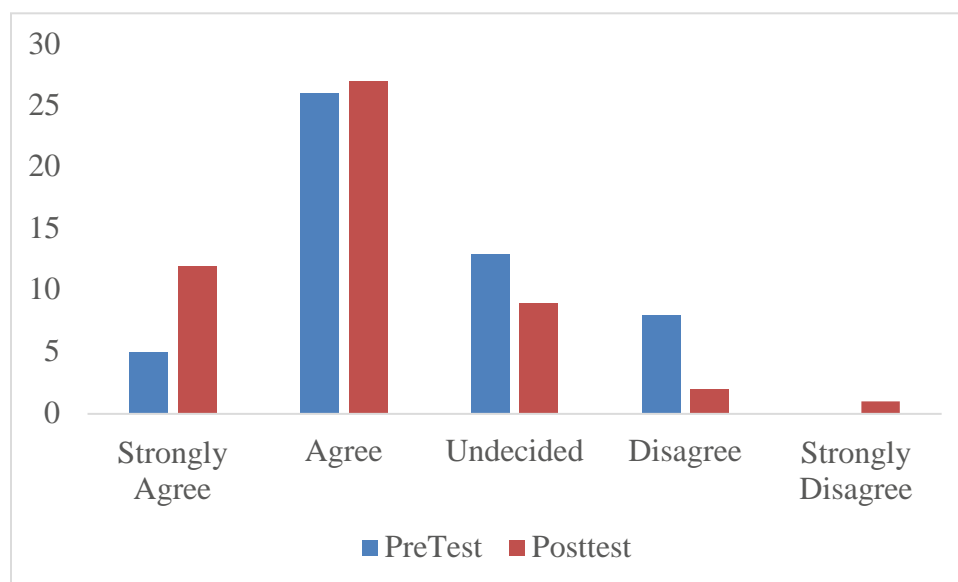
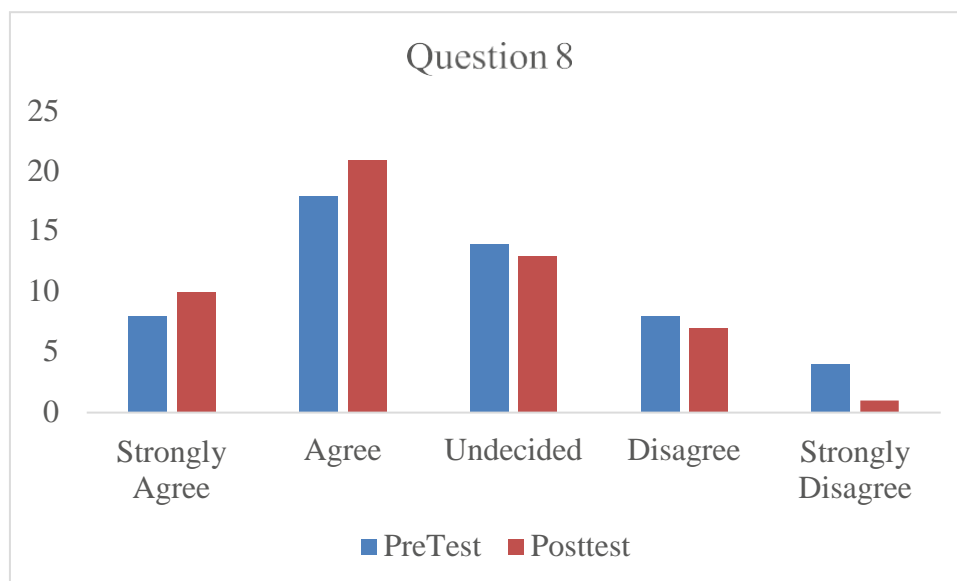5. I feel my peers can learn from watching me teach in my classroom.

6. I would like to see more peer coaching as a professional development tool in my school.
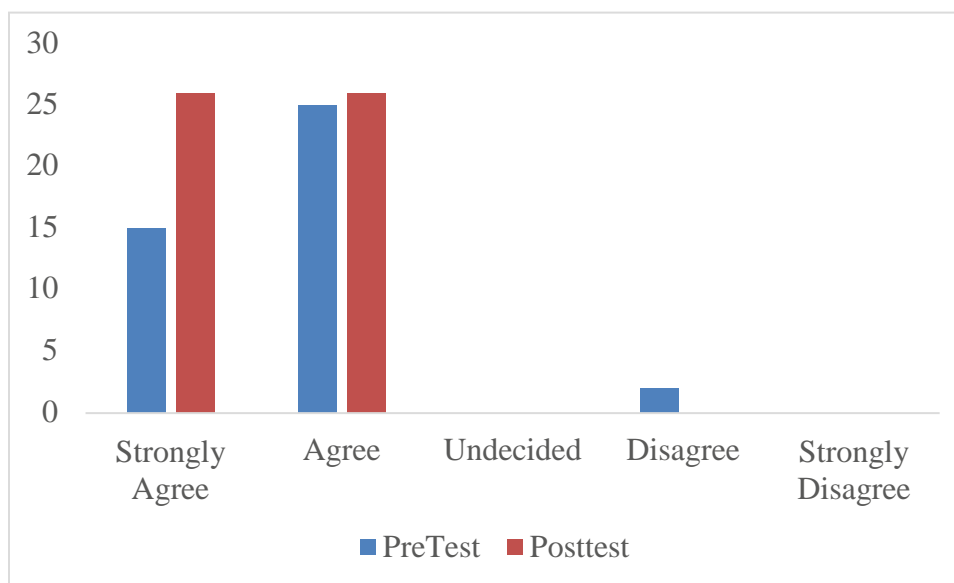
7. Instructional Rounds is a tool used in many schools to be able to go into colleagues'
   classrooms and view their teaching. I feel my classroom can benefit from the use of
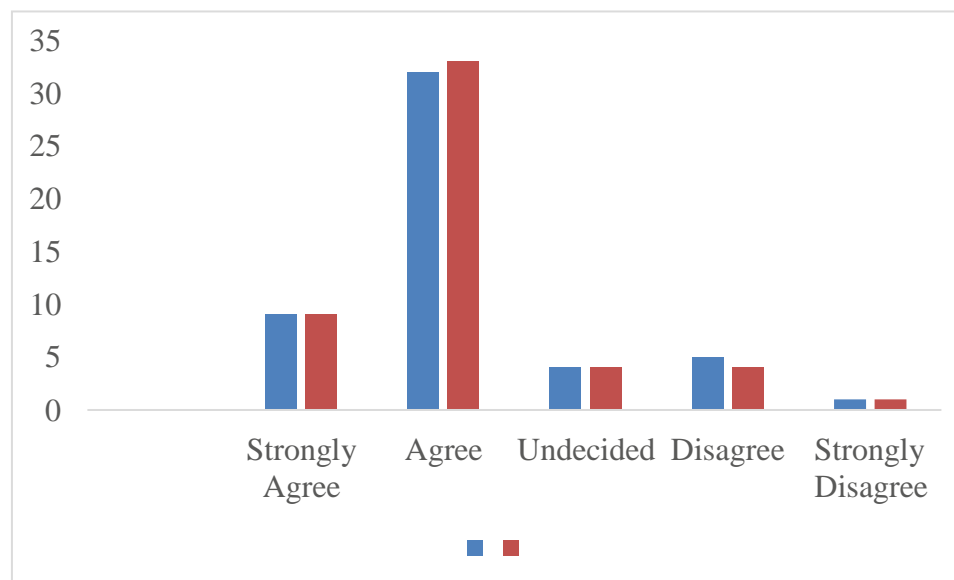   Instructional Rounds as a professional development tool.

8. I would like the opportunity to help plan and develop professional learning opportunities
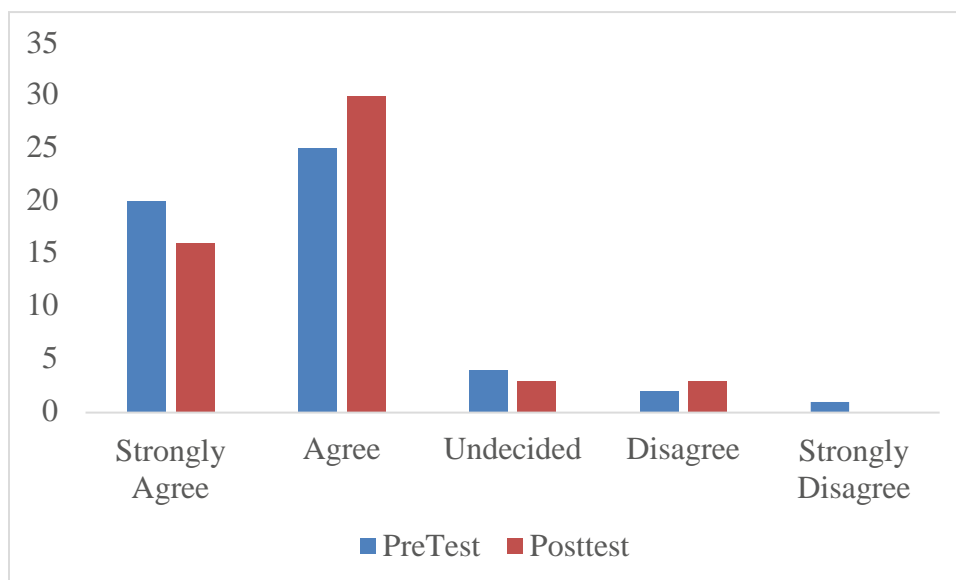   at my school.

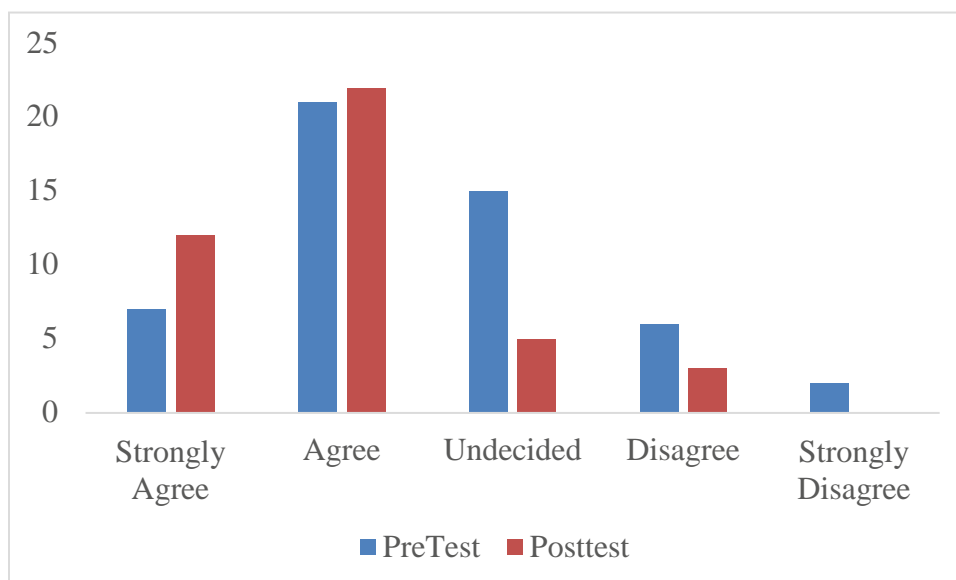*9.* I am interested in learning about ways to enhance my classroom.

Question 9 chart

A grouped bar chart (PreTest, Posttest) with y-axis from 0 to 30 and categories Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
PreTest	15	25	0	2	0
Posttest	26	26	0	0	0

Legend: ■ PreTest ■ Posttest

10. I readily take what I learn in professional development opportunities and use it in my classroom.

Question 10 chart

A grouped bar chart (PreTest, Posttest) with y-axis from 0 to 35 and categories Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree.

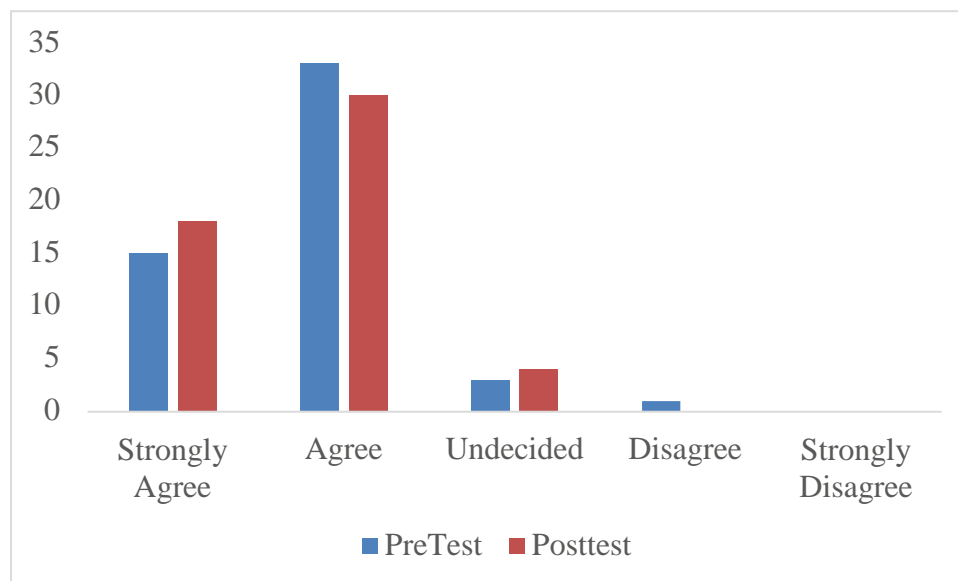|	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
PreTest	9	32	4	5	1
Posttest	9	33	4	4	1

11. I enjoy speaking and interacting with my school learning community, including, teachers, staff and administrators.

12. I would like to be actively involved in the learning process of teachers in my school.

13. I welcome constructive criticism and feedback to help my performance in the classroom.

Survey question number 14: What type(s) of professional development do you feel is needed for a veteran teacher? For example, coaching, observing other teachers, attending workshops, etc.

The survey results changed in the need to attend workshops from 30 responses down to 17 Responses. The responses in the need for coaching went form 8 responses to 13 responses. Collaboration increased from 2 to 9 responses. Observations increased from 24 to 29 responses and learning about new research and programs increased from 1 to 4 responses.

Survey Question Number 15: What tools do you feel will help you identify areas of growth in your classroom?

The survey responses changed in the area of observations and feedback from 8 to 21 responses and from 0 to 9 responses in collaboration.

Survey Question Number 16: What type of tools do you feel you need to help you learn and improve in your own classroom?

The survey responses in collaboration remained the same with 10 responses. Observation and feedback results also remained the same with 7 responses.

Survey Question Number 17: What type of information is valuable for the veteran teacher to enhance learning?

The responses increased to learn new or important information on current research from 8 to 10 responses. The tool of collaboration also increased from 2 to 5 responses.

Survey Question Number 18: If you had the opportunity to develop a professional plan during Monday meetings (1 hour each) which topics would you be interested in learning more about? Check all that apply. Participants were allowed to respond with more than one answer of: student engagement, instructional strategies, classroom management, differentiation techniques, Instructional Rounds, growth mindset, specific programs or other. Participants could write in the Other response.

	Pretest	Posttest
Student Engagement	5	9
Instructional Strategies	8	8
Classroom management	8	8
Differentiation techniques	9	8
Instructional Rounds	4	7
Growth Mindset	13	10
Specific Programs	10	12

19. How many years have you been teaching?

6 to 10	12
11 to 15	9
16 to 25	20
26 +	12

20. What is your age?

25 to 34	10
35 to 44	19
45 to 54	23
55 to 64	22
64 to 74	1
75+	0

21. What age group do you teach?

elementary	16
secondary	32

22. What is the highest level of education you have completed?

B.A./cred.	7
Master's degree	41

APPENDIX H

AUDIO USE- INFORMED CONSENT

As a part of this research project we will be making an audiotape recording of you during your participation in the experiment. The use of videotape will assist in the validation of the answers to the questions that you provide. Please indicate below, by circling yes or no, if you are willing to consent to the audiotape. We will only use the audiotape in a way that you agree to. In any use of this audiotape, your name would not be identified. If you do not circle yes or no, the audiotape will be destroyed.

Please indicate your informed consent.

The audiotape can be studied by the research team for use in the research project. <u>Please circle:</u>

Yes or No

The extra copy of this consent form is for your record.