Teaching the Teachers:

Peer Observations in Elementary Classrooms

by

Matthew D. Schenk

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Approved March 2016 by the
Graduate Supervisory Committee:

Melanie Bertrand, Chair
Ray R. Buss
Stacie Crain Hacker

ARIZONA STATE UNIVERSITY

May 2016

ABSTRACT

The United States is facing an unprecedented teacher shortage. With many studies estimating that 17-33% of teachers leave the profession within their first five years of starting a career, something needs to change to keep new teachers in the classroom. This study evaluates the effectiveness of peer observation as a learning tool to supplement the training of preservice teachers on an elementary campus. Observational learning theory and adult learning theory created the lens through which peer observations were implemented and evaluated in this study. Specifically, this study aimed to answer the following research questions: (a) How do conversations about teaching practices evolve over time between the preservice teacher participant and the researcher within the context of discussions following peer observations? and (b) How do peer observations influence the teaching practices of preservice teachers?

This study found that the preservice teachers who participated in the peer observation intervention improved in their teaching practices over the course of the semester, valued the experience of peer observation visits, and increased their ability to talk about teaching and learning in more sophisticated and complex terms.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

Introduction and Context

New teachers face a myriad of challenges throughout their first few years in the classroom, causing many to leave shortly after beginning their career. Challenges faced by new teachers include developing effective parent communication skills, establishing classroom management techniques, planning lessons, assessing student work, navigating the political landscape of their school and district, differentiating instruction for students who are above or below the class average in performance, and meeting the endless onslaught of deadlines (Kardos & Johnson, 2007; Nelson & Thompson, 1963; Pogodzinski, 2013; Weiss, 1999). Most new teachers find themselves working twelve or more hours each day including weekends and holidays just to keep up with the demands of the job (Kardos & Johnson, 2007; Ladd, 2011; Nelson & Thompson, 1963; Pogodzinski, 2013).

Nationally, new teachers in the United States have been leaving the teaching profession in droves within the first five years of beginning a career in education (Darling-Hammond, 2003; Kaiser, 2011; Kopkowski, 2008). Although this flight from the teaching profession has been most notably felt in the highest needs schools, more affluent schools and districts have been regularly affected as well by new teachers leaving the profession within the first few years before fully developing mastery of the profession (Anyon, 1997). Many attribute this phenomenon to a lack of perceived efficacy felt by many new teachers (Atiles & Pinholster, 2013; Steffy & Wolfe, 2001).

Teachers leaving the profession mid-year have left students without a qualified teacher, which has resulted in gaps in students' academic knowledge, disjointed

1

curriculum, and behavioral problems among the students. In addition, vacancies have been hard to fill in the middle of the school year because most teacher preparation programs follow the same academic calendar as the elementary school, thus leaving few or no new applicants for vacant positions until the December or May graduation times. Further, teacher candidates who were available to hire mid-year are usually individuals who did not get hired during the typical summer hiring season or who have resigned from their contract in another district. These applicants tend to have very low teaching proficiency levels.

Failed Attempted Solutions to Early Career Teacher Challenges

Teacher preparation programs have been constantly re-evaluated and revised by colleges in an attempt to adequately prepare graduates for the mental and emotional strain of the job, but often with limited success (Goldhaber & Cowan, 2014). Many of the challenges faced by new teachers are highly contextualized and vary among schools, making it hard to prepare future graduates for the specific challenges they will face when they embark on their initial career in teaching (DeAngelis & Presley, 2010; Goldhaber & Cowan, 2014; Ladd, 2011; Pogodzinski, 2013). Arizona State University has recently attempted to meet these challenges by changing the student teaching requirements for graduates of most of the teacher preparation programs to include two full semesters of student teaching to give students more time to learn from cooperating teachers and experience a broader array of situations (Mary Lou Fulton Teachers College, 2014).

Several school districts have used comprehensive teacher induction programs, which often involve training during the new hire orientation followed by visits from an assigned mentor for the first two or three years (Ingersoll & Strong, 2011; Kaiser, 2011;

Taylor, Yates, Meyer, & Kinsella, 2011). In many cases, however, mentors have been either still in the classroom themselves facing the daily challenges of teaching and managing a classroom, or, if the mentors were out of the classroom and in a coaching role, their caseloads made it unrealistic to provide adequate support to all who need it (Ingersoll & Strong, 2011). These challenges have translated to teacher frustration and ultimately attrition.

Nationally, 17 to 33 percent of new teachers have left the profession within five years to pursue careers in other fields (Darling-Hammond, 2003; Kaiser, 2011; Kopkowski, 2008). These figures were consistent in the school district where early cycles of research for this study took place (T. Hancock, personal communication, February 9, 2015). This exodus of new teachers has led to added expenses for school districts trying to keep up with the cost of training new employees. Countless children also have missed out on the opportunity to learn from experienced teachers who have developed mastery of their profession over time. An over-saturation of inexperienced teachers is particularly noticeable and harmful to students in poverty-stricken schools around the country (Anyon, 1997; Darling-Hammond, 2003).

Administrators overwhelmed with the problems that have arisen from high turnover in the teaching staff struggle to find the time necessary to fully coach and develop new teachers. Principals have depended on staff development coaches or new-hire orientation training to provide new teachers with the skills and strategies needed to be successful in the first few years of teaching (Ingersoll & Strong, 2011). Sometimes administrators have called in outside "experts" to lead professional development for teachers, sending a covert message that the necessary skills to train teachers are not

already present on the campus (Roseler & Dentzau, 2013). The lack of training for preservice and early career teachers results in higher turnover rates, which costs the school or district additional money to train more new teachers (Darling-Hammond, 2003).

Arizona Legislation to Improve Teacher Quality

In recent years, the Arizona legislature has tried to address the issue of teacher development through evaluation reform (*ARS§15-203(A)(38)*, 2011). Senate Bill 1040 which later became law on April 25, 2011 through Arizona Revised Statutes 15-203 (A)(38) has required, among other things, teacher and principal evaluation systems to be based on a framework to include best practices of teaching and to include at least four classification levels of performance (*ARS§15-203(A)(38)*, 2011; Arizona Deparment of Education, 2014). According to the Arizona Department of Education website, the rationale behind the legislation was sponsors of the bill believed teachers could benefit more from this meaningful feedback than from the traditional evaluation systems that did not account for the complexities of teaching (Arizona Deparment of Education, 2014). The Danielson Framework has been adopted by hundreds of school districts nation-wide as a model to satisfy the requirements of state law as well as meet the needs of the district.

Many teacher preparation programs, including the iTeachAZ program through Arizona State University, had already changed their evaluation rubrics to comply with this standard a few years before state law mandated the change for Arizona teachers. The intent of the evaluation rubric for preservice and current teachers is to be used as a coaching tool to improve teaching and learning.

The district in this study, along with dozens of other local school districts in Arizona, uses a modified version of Charlotte Danielson's framework of teaching to meet the state requirements set forth in ARS 15-203. The framework has been used by both new and veteran teachers to evaluate their teaching practices in each of four domains of teaching (Danielson, 2007). Each domain has been further separated by components of the domain with a four-point rubric to indicate levels of performance for each component. The four domains of teaching as defined by Danielson are (a) planning and preparation, (b) classroom environment, (c) instruction, and (d) professional responsibilities (Danielson, 2007). Danielson's work has also claimed that engaging in conversations about teaching is the quickest and most effective way to improve pedagogical practice (Danielson, 2009). This change to make the evaluation system more meaningful, however, has failed to reduce teacher attrition rates in Arizona according to a recent report by the Arizona Department of Education (2015).

Role of the Researcher

On the front lines of this crusade to train and support teachers are the administrators who hire and train these educators. As the principal of an elementary school serving approximately 700 students in grades pre-school through six in a small suburban district, I have been charged with managing and leading a school system that provides the best possible educational experience to all students. A major component of this charge has involved coaching and training staff, including student teachers. On average, about 70% of my day has been spent in classrooms observing, coaching, and evaluating teachers and staff. These observations have affirmed that experienced masterful teachers had fewer discipline infractions, attained higher levels of student

growth, and seemed more satisfied with their job than teachers who are new to the craft (Veenman, 1984; Wideen, Mayer-Smith, & Moon, 1998).

In a pursuit to ensure every student receives a high quality education from a teacher who has mastered his or her craft, I have participated with teachers in dozens of professional development activities including workshops, book studies, whisper coaching, data analysis, webinars, and countless professional conversations. I often begin training teachers while they are still in the student teaching stage of their career and then hire the best to join my staff. This early intervention is important to me as an principal because during the formative year of student teaching, new teachers are the most open to feedback and are learning their skills for the first time. It is much easier for me to train a teacher correctly during their student teaching, than try to break bad habits once they are fully certified.

Reflecting on my own professional development as an educator, I found that I have learned the most from watching other teachers who have mastered their craft. In 2012, I began taking other teachers on "tours" of the school to observe peers and discuss best practices of teaching.

Peer Observation as a Learning Tool

In a previous cycle of action research conducted as a preliminary study by this researcher, all classroom teachers and student teachers on an elementary campus participated in peer observations within their local context. Teachers traveled in teams of three or four with the researcher and visited two or three classrooms for 10 to 15 minutes each. Throughout the observation and immediately following the observation, teachers were engaged in dialogue with the researcher about teaching practices, particularly about

student engagement, formative assessment, and classroom management. Teachers generally reported positive learning experiences from this exercise. Nevertheless, the results of the initial study may have been influenced by the researcher's supervisory role.

Peer observation has become an increasingly popular method of staff development and training (Chamberlain, D'Artrey, & Rowe, 2011; Darling-Hammond, 2010; Kaufman & Grimm, 2013; Pressick-kilborn & Riele, 2008; Siddiqui, Jonas-Dwyer, & Carr, 2007; Sullivan, Buckle, Nicky, & Atkinson, 2012). Paired with guiding questions from an instructional coach or mentor, peer observation has proven to be a powerful tool to improve pedagogical practice (Darling-Hammond, 2010; Kaufman & Grimm, 2013). Typically, preservice and certified teachers participating in the peer observation process have watched another teacher, preferably as close as possible to their own professional context, followed by critical dialogue about pedagogical practices with the observed teacher or others who observed the teacher (Chamberlain et al., 2011; Munson, 1998).

In the preliminary study, new teachers and struggling teachers seemed to benefit most from the peer observations. The researcher visited each participant's classroom at least three times for approximately 20 minutes in the three weeks following participation in the peer observations to watch the teaching practices used by the teacher and dialogue with the teacher about professional pedagogical goals. Teachers seemed more comfortable implementing new teaching strategies after seeing them modeled by other teachers on campus. Several teachers called peers they had previously observed to ask for clarification on particular teaching methods or strategies. Although the data collection of the pilot study was minimal and the findings were used primarily to improve the tacit

knowledge of the researcher, the implications of the study warranted further investigation of peer observation as a method of improving pedagogical practices for new teachers.

Purpose of this Study

The purpose of this study was to explore peer observation as a model of training for preservice teachers to improve pedagogical practices. Preservice teachers were selected for this study because of their willingness to try new strategies and form growth-oriented attitudes (Atiles & Pinholster, 2013; Steffy & Wolfe, 2001). All preservice teachers on the campus where this study took place fell into the category of millennials, a group particularly known for a willingness to use new and unconventional methods of learning (Clark & Byrnes, 2015; Scott, 2012).

Preservice teachers participated in three cycles of peer observation with the researcher. Each cycle included a brief conversation prior to entering a classroom to discuss what the focus of the visit would be. This was followed by 20 to 30 minutes of classroom observation time with discussions throughout the visit, and ended with 5 to 10 minutes of conversation and discussion about specific teaching practices after each visit.

The researcher observed the research participants teaching in their own classrooms the week prior to and the week after the observations to measure the use of specific teaching practices using a performance assessment rubric (see Appendix A). As the principal of the school in which the research participants work, the researcher had to take special precautions to ensure that participants understood that participation in the research study was completely optional and would not affect their performance evaluation, on which the researcher has no influence, or would interfere with the

8

preservice teachers' ability to be hired at the school at the conclusion of their teacher candidacy program.

Theoretical Framework

Observational Learning Theory as outlined by Albert Bandura (1971) provided the foundation for much of the methodology in this study. Participants learned by watching others and then imitating the skills and procedures they observed from their peers' teaching successes within their own local context. Just as resident doctors learn important skills by observing expert physicians, new teachers can learn skills and strategies by observing master teachers engage in the practice of education.

Adult learning theory (Lindeman, 1926) and andragogy (Knowles, Holton, & Swanson, 1998) has also guided much of this study. Lindeman asserted learning should be coterminous with life and that adult learners should engage in learning activities that have direct application to the adults' context in life (Lindeman, 1926). Peer observations provide exactly that type of applicability adult learners crave. The learning that occurs through peer observations can be immediately applied to the observers' own practice in a direct and highly applicable manner.

Research Questions

This chapter has outlined the struggles faced by preservice teachers and the common strategies used to train and prepare early career teachers to meet these strenuous demands. The researcher's role in the study is defined, including the factors contributing to using peer observation as a method of professional development for preservice teachers. Finally, the theoretical framework guiding the study has been discussed. To guide this study, the following research questions were posed:

RQ1: How do conversations about teaching practices evolve over time between the

preservice teacher participant and the researcher within the context of

discussions following peer observations?

RQ2: How do peer observations influence the teaching practices of preservice

teachers?

CHAPTER 2

Literature Review and Theoretical Framework

This chapter addresses the literature related to peer observation as a training method for preservice and early career teachers to improve teaching practices. The chapter is divided into two main sections, literature related to the theoretical perspectives informing the study and empirical research related to the study. Observational learning theory and adult learning theory are addressed as frameworks for the study followed by an in-depth review of empirical research on peer observations and teacher training.

This study attempted to understand the influence of peer observations on the teaching practices of preservice teachers in an elementary school setting. Although much has been written on the topic of peer observations, very little of the literature has been applied directly to preservice teachers in an elementary school setting. This study aimed to apply the literature from the broader context of peer observations and teacher training to the specific and local contexts of preservice teachers in an elementary school setting.

Theoretical Perspectives

Observational Learning Theory

Proponents of observational learning theory have suggested learning occurs through the observation of peers (Bandura, 1971; Bandura & Huston, 1961). This type of learning occurs when an observer watches someone or something to learn how to do something. Studies conducted by Bandura and Huston (1961) have demonstrated the effectiveness of observational learning in children, adults, and even animals.

Bandura (1965) claimed observational learning occurs in four stages. First, the learner must have observed a model. Observation can be done intentionally, such as

watching someone with the intent to learn a skill, or incidentally, such as seeing a behavior the learner was not necessarily intending to observe. The next step in observational learning has been designated as retention or memory of the skill observed. The observer has to remember the skill to be able to reproduce it later. The third step of observational learning has been called replication of the behavior. Steps 1 through 3 may occur in several iterations as the observer notices certain aspects of the skill being observed and then has to go back to watch in more detail before being able to fully replicate the skill observed. Finally, the fourth step in the process has required the observer to summon the proper motivation to replicate the skill observed (Bandura, 1965). Motivation has been shown to be either an intrinsic desire, such as a desire to improve a pedagogical skill, or extrinsic because the observed skill became a job requirement (Pink, 2009).

These four steps can be particularly influential in teacher training programs as seen during student teaching. The student begins the processes by observing the mentor teacher in the classroom (Step 1). This can last several weeks or only a few days depending on the comfort level of the student teacher and the mentor teacher in transferring control to the student teacher. Next, the student teacher must have remembered key elements of what he or she observed from the mentor teacher (Step 2). The student teacher may have noted and remembered such things as how to introduce a learning objective, what to do if a student blurts out an answer, or how to respond if a student asks to go to the bathroom. After observing and remembering the behavior or skill, the student teacher must have been able to replicate the practice (Step 3). This is most typically done by allowing the student teacher to teach a part of a lesson.

As noted above, Steps 1 through 3 are typically an iterative process. It is unlikely that a student teacher would observe all of the nuances of teaching without practicing the skill. For example, early observations from the student teacher are likely to focus on basic classroom rules and management. As the student teacher gains more comfort in these areas, the student teacher would begin to notice more complex strategies such as differentiated instruction techniques or discussion strategies that increase overt engagement.

Step 4 of the observational learning cycle, according to Bandura (1965), requires possessing the motivation to replicate the observed skills or behaviors. For many student teachers, passing the student teaching program and becoming a qualified teacher creates adequate motivation to study and learn the necessary skills through observation.

Observational learning has been a preferred learning theory when stakes are high. In high stakes environments, using trial-and-error processes to learn a skill can take an unnecessarily long time and in some cases can even be fatal (Bandura, 1965). "It would be exceedingly injudicious to rely on differential reinforcement of trial-and-error performances in teaching children to swim, adolescents to drive automobiles, medical students to conduct surgical operations, or adults to develop complex occupational social competencies" (Bandura, 1971, p. 3). By comparison, low-stakes environments have lent themselves to passive observational learning, such as learning how to use a new computer program or participating in a professional development workshop. However, engagement in observational learning has skyrocketed when stakes have been high. If a learner has needed to take over for someone doing heart compressions to save a life or defuse an

active bomb, it stands to reason the learner would be much more engaged in the process of observational learning.

Observational learning has been shown to be foundational to the training of medical professionals (Chamberlain et al., 2011; Hill, 2013; Siddiqui et al., 2007; Sullivan et al., 2012). Medical residents complete hundreds of hours of observation before being allowed to practice medicine independently (Wieland et al., 2013). When new doctors learn how to perform complex surgeries, the intern surgeon begins by participating in only a small part of the operation, such as managing the tools, and then observing for the rest of the procedure (Boesel, personal communication, December 15, 2014). Gradually, more and more responsibilities are handed over to the doctor in training. This progression from observation to actual practice suggests the medical profession understands the value of the observational learning model since it is used when lives are literally at stake.

Based on the insights from observational learning theory, I assert that, when the education of our schoolchildren is on the line, the stakes are simply too high to rely on traditional trial-and-error learning by novice teachers to develop the pedagogical skills necessary to educate their students in their classrooms. Theoretical knowledge from college courses and textbooks has provided a satisfactory starting point for the training of new teachers, but thorough field experience and observations have been proven to be essential to provide new teachers with the skills necessary to provide students with the best possible educational experience (Ronfeldt & Reininger, 2012). Moreover, it is my contention that meaningful training experiences are essential to the success of all

teachers, particularly those just starting their careers. Observational learning theory provides a sturdy foundation for the principles of meaningful learning.

Observation learning theory is at the heart of this study. Participants in this study engaged in the first three steps of the observational learning cycle as outlined by Bandura (1965). Preservice teachers observed peer mentors from within their local context (Step 1), remembered and reflected on the learning through conversations with the researcher (Step 2), and practiced the newly learned skills in their own classrooms (Step 3).

Adult Learning Theory

Student teaching and field experience are particular forms of adult education. Like any educational experience, the effectiveness of student teaching should be measured by its application to practice. Dewey asserted, "An aim [of education] must be capable of translation into a method of cooperating with the activities of those undergoing instruction" (Dewey, 1916, p. 108). Thus, if a preservice teacher sits through student teaching classes or engages in hundreds of hours of field experience, but has not applied the lesson to his or her practice, it has been ineffective.

A pioneer of the adult learning theory and friend of John Dewey, Eduard Lindeman, believed learning took place in the context of life and should not be isolated in curriculum for adults. "In conventional education the student is required to adjust himself to an established curriculum; in adult education the curriculum is built around the student's needs and interests" (Lindeman, 1926, p. 6). Lindeman went on to say, "The resource of highest value in adult education is the learner's experience. If education is life, then life is also education" (Lindeman, 1926, p. 6). This suggested preservice

15

teachers have a wealth of experiences based on their practicum time in the classroom with students; hence those experiences should be the foundation of their future learning. Preservice teachers gain new experiences every day they are in the classroom. These experiences create a solid foundation from which preservice teachers can extend their learning through verbal pursuits.

True workshops where participants engage in a dialectical pursuit of solving a problem with peers from their local context have the most meaning for adult learners (Lindeman, 1953). This type of learning does not dismiss reading texts from experts in a field of study, but rather begins with a problem, which then leads to a discussion and an analysis of texts in response to a particular problem. These types of real-life, problem-solving discussions result in confidence from the learner when faced with similar problems later in life. "A self-confident person is one who approaches a situation calmly and with assurance because he has already gone through a similar experience" (Lindeman, 1953, p. 193). By participating in authentic dialogue about real-life problems faced by teachers, preservice teachers could approach similar problems with confidence when they experience those situations later in life.

Lindeman was an advocate for adult education being coterminous with life (Lindeman, 1926). This theory has been particularly relevant to professional development for teachers. The process of professional development, or adult learning, should not be separated from the practice of teaching (Lindeman, 1944; Trotter, 2006).

Adult learning theory has informed this research study by aligning all methods of professional development with a practical, hands-on approach to learning that meets the actual needs of preservice teachers in a highly contextualized way. As opposed to

traditional professional development models that address one issue or topic to a diverse audience of learners, peer observations can allow preservice teachers to learn skills and strategies that address the needs and problems they face in their unique classrooms every day.

Empirical Research Literature

The theoretical perspectives of observational learning theory and adult learning theory, which guided this research study, have been outlined and summarized. The remaining sections of this chapter are presented to review the empirical research literature on the typical training received by preservice teachers and peer observations as learning tools. Much has been written on the topic of teacher training; however, the literature is lacking in the area of applying peer observation as a training tool for preservice teachers.

Training of Preservice Teachers

With teacher turnover rates at an all-time high (Arizona Department of Education, 2015; Clandinin et al., 2015; Goldhaber & Cowan, 2014; Krieg, 2006) more students than ever are being taught by new teachers and these new teachers have fewer mentors to select from as more teachers leave the profession (Arizona Department of Education, 2015; Clark & Byrnes, 2015). Schools must partner with teacher preparation programs to ensure that preservice teachers receive meaningful training before entering the teaching profession to prevent burnout and early-career attrition (Clandinin et al., 2015; Goldhaber & Cowan, 2014).

A majority of the preservice teachers in teacher preparation programs who are about to join the ranks of certified teachers are considered millennials and technological natives (Arizona Department of Education, 2015; Clark & Byrnes, 2015). According to a

study of predominantly female millennials in teacher training programs, many have grown up in a school system where average is not considered good enough. When this group rated their perceived efficacy in teaching skills compared to their peers, nearly 70% of respondents perceived themselves as being above average (Clark & Byrnes, 2015). This perception of a false sense of mastery can be disheartening when the realities and challenges of teaching hit.

Another study evaluated the personas that preservice teachers developed during their teaching training programs (Davis, 2013). Although this generation of future teachers professes a commitment to personal authenticity and transparency, preservice teachers in this study admitted to carrying images and memories of teachers throughout their lives that influenced who they wanted to become as a teacher. As these preservice teachers began their teacher training, they must synthesize their experiences, memories, and notions of teaching to develop their personal teaching identity (Davis, 2013). I posited that the broader the wealth of experiences the preservice teacher has to draw from, the more prepared the preservice teacher will be to attain success as a teacher. This is why effective teacher training is so important for preservice teachers.

Teacher training has been a cornerstone of K-12 education, but like the education system as a whole, it has been wrought with controversy (Hill, 2013). This review of literature has addressed current models of teacher training commonly used in preservice programs and elementary schools as well as many similar training models used in higher education which are referred to as teacher training when used in preservice teacher preparation programs.

Professional Learning Communities, or PLCs, have become commonplace in schools across the country as a mode of professional development. PLCs consist of educators meeting together regularly to discuss teaching and learning. According to Richard DuFour (2011), who is recognized as a leader of the PLC initiative, the PLC process should be centered around four main questions:

1. What do students need to know and be able to do?

2. How will we know when they have learned it?

3. What will we do when they haven't learned it?

4. What will we do when they already know it?

PLCs can be teacher directed or led by an instructional coach, administrator, or outside facilitator, but the ultimate goal is to engage teachers in authentic dialogue about teaching and learning within their local context (DuFour & Marzano, 2011; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). I assert that, although the current PLC model promotes critical thinking about practice among teachers, it has not offered a model to emulate, leaving preservice teachers needing more. Furthermore, PLCs have often been driven by administrative mandate. As a result, although PLCs have given the appearance of teacher autonomy, teachers are often simply trying to satisfy the requirements of the mandate (Stoll et al., 2006).

Similar to the PLC movement, Charlotte Danielson, known for her development of the Danielson Framework for Teaching (Danielson, 2007), asserted that the best type of professional development in which a teacher can engage is dialogue about the teaching process. Danielson (2009) recommended using a rubric-based observation tool to observe classroom teachers followed by the observer asking questions using the rubric as

a guide. Observers use the critical attributes listed on the rubric to engage in dialogue about different teaching strategies that can be used to encourage student learning (Danielson, 2009). Although this type of professional development provides a model for teachers to observe, the focus of the professional development is the teacher being observed. Danielson's model is dependent on a trained observer to ask thought-provoking questions.

Another model of professional development quickly gaining popularity is collaborative inquiry. This model of professional development involves teachers identifying goals or problems of practice and then discussing them together to evaluate strategies and practices to meet their individual goals. A study involving Canadian teachers spanning three schools found this model of professional development to be highly effective for teachers who were considered instructional leaders on campus and for teachers who actively engaged in the process (Butler & Schnellert, 2012). Forming collaborative inquiry communities similar to professional learning communities (DuFour & Marzano, 2011; Stoll et al., 2006) had a positive effect on student learning outcomes with 89% based on self-reflections from the participants (Butler & Schnellert, 2012). This suggested teachers perceived a more meaningful learning experience from self-directed learning models than traditional professional development models.

Seemingly countless books and programs have been available with variations of the professional development models discussed above. Many of the same models used to train and develop current teachers are used with preservice teachers during their teacher preparation program. Most of the current models of professional development seen in schools require passive participation. Rubric-based observation protocols and

collaborative inquiry models all have failed to provide the preservice teacher with valuable models of teaching on which to base a conversation about teaching and learning.

Peer Observations

Within the broad and often ineffective array of PD models, peer observations stand apart as a promising prospect for improving teaching practices, especially for preservice and inexperienced teachers. Peer observation is a training technique with roots in observational learning theory (Bandura 1971). Peer observation typically involves a novice practitioner observing a veteran in a particular field with the intent of developing or enhancing the skills of the novice practitioner. The practice of peer observation has been well documented in the medical field (Boatright, Gallucci, & Swanson, 2009; Hill, 2013; Siddiqui et al., 2007). Moreover, many higher education institutions use peer observation as a tool for professional growth and evaluation (Palmer, 1998; Pressick-Kilborn & Te Riele, 2008; Whitney & Rorschach, 1986). Peer observation in a K through 12 academic setting is becoming more common, but still very little literature exists on this topic. The following sections provide information on peer observation as a learning tool in medical training, higher education, and K-12 education.

Peer observation in the medical field. Many teachers in medical programs participate in peer observations as a way of improving their personal practice and becoming more effective educators (Chamberlain et al., 2011; Siddiqui et al., 2007; Sullivan et al., 2012). This particular subset of higher education teachers is reviewed separately due to the extensive amount of literature on the topic for this subgroup of educators. The prevalence of peer observation as a learning tool in medical degree programs may have resulted because of the general acceptance of observational learning

21

in the medical field. Most medical practitioners have participated in extensive residency programs that involve hundreds of hours of observation.

Chamberlain and colleagues' (2011) evaluation on the effectiveness of peer observations in higher education shows mixed results. Chamberlain and colleagues argued that observation is most effective when the purpose is clearly articulated to staff to ensure a meaningful experience. When the purpose of the observation is explicitly clear, staff reap more benefits from the experience than simply completing another task to maintain compliance with school requirements.

Sullivan and colleagues (2012) conducted research on peer observation of teaching in medical degree programs. They concluded the practice improves course content as well as delivery of material. By observing peers in the act of teaching, instructors get a fresh perspective on curriculum material and delivery style (Siddiqui et al., 2007; Sullivan et al., 2012). Thus, peer observations reinforce good teaching while modeling new strategies for educators. This concept can be applied at all levels of education.

Siddiqui and colleagues (2007) identified obstacles to peer observation faced by medical professions, which also apply to K through 12 and higher education teachers. The commonly reported reasons for resistance to peer observation included time constraints, busy workloads, and fear of scrutiny or criticism from peers. These challenges were similar to those found by Munson in a K through 12 setting (Munson, 1998; Strother, 1989). In both cases, fears of scrutiny and criticism from peers were alleviated after participating in peer observations (Munson, 1998; Siddiqui et al., 2007). In most cases, the thought of participating in peer observation seemed intimidating to

22

participants, but once the peer observations were over, participants found them to be a meaningful experience.

Insights from peer observation in higher education. Peer observation as a tool for professional development has become more commonplace in higher education over the last couple of decades and provides several insights that can be applied to K through 12 education, including increases in peer collegiality, improved culture, and improved pedagogical practices among participants. Peer observation has been used as an evaluation tool, a peer review tool, and a developmental program in higher education and K through 12 institutions.

Peer observation has led to the development of collegiality among educators. After observing a peer deliver instruction, educators have engaged in professional dialogue about content or pedagogy. This dialogue led to improvements beyond implementation of observed practices (Bell & Mladenovic, 2007). When teachers asked questions of each other and engaged in rich professional dialogue, it creates a culture of collaboration and respect. Within a culture of collaboration, teachers share new ideas building on each other's work.

Three primary models of peer observation emerged in the literature: evaluation, peer-review, and developmental (Cosh, 1999; Siddiqui et al., 2007). Some schools have attempted to use peer observation with a model that replaces or supplements an evaluation from a supervisor. This model was generally met with resistance and showed very little evidence of resulting in positive change in the practice of the teacher (Cosh, 1999). Likewise, peer review was often criticized by teachers as being judgmental in nature and outside of the scope of an educator's practice (Cosh, 1999). Peer observation

for developmental purposes, however, consistently receives more positive results from participants as the focus is not evaluatory in nature and is generally mutually beneficial to the observer and the observed teacher (Cosh, 1999; Lortie, 1975; Palmer, 1998; Pressick-kilborn & Riele, 2008).

As early as 1985, two college writing professors began using peer observations as a method to improve their teaching practices (Whitney & Rorschach, 1986). Each professor participated in their peer's class as a student with the intention of simply observing. Initially, the professors were not going to tell the students about the project, but later decided it was best to inform the students so as to not violate the trust of the students. After several weeks, it became exceedingly evident to both professors they could solicit support from their colleague to solve specific problems of practice each faced in their classroom. They began sharing specific problems while the other was to observe and collect data. Later in the semester, they began video-taping parts of the lesson to supplement the reflective conversation. At the conclusion of the experience, both professors reported the experience to be mutually beneficial in improving pedagogical practice (Whitney & Rorschach, 1986).

Peer observation in K-12 education. Peer observation as a method of professional development for K through 12 teachers began gaining recognition in the literature as early as the 1970s and continued to build momentum through the early 1990s (Cosh, 1999; Lortie, 1975; Munson, 1998; Strother, 1989; Whitney & Rorschach, 1986).

During the 1988-89 school year, a superintendent in Massachusetts suspended all teacher evaluations for tenured teachers for one year to focus on coaching through peer observations (Strother, 1989). Formative feedback to improve teaching was being

convoluted with summative evaluations, as was often the case with such programs, so by removing the summative evaluation, teachers were freed to participate in peer observations without fear of evaluative reprisal (Strother, 1989). Participants in this and similar studies were initially reluctant to open their doors to peer observers, but quickly embraced the practice as they developed familiarity with the process (Strother, 1989).

A decade later, Munson (1998) replicated two similar studies in a K through 2 school and a high school. Munson stressed the importance of a pre-conference, observation, and a post-conference in her observation protocol. All three steps were designed to establish trust between the teachers and the participants to facilitate participants' pedagogical growth. The purpose of the pre-conference was to discuss the lesson objectives, expected student behaviors, and decide what data were to be collected. The observing teacher then visited the classroom for a pre-established amount of time and collected data using a pre-determined data collection tool. Finally, during the post conference, the role of the observing teacher was to report the data. The observed teacher analyzed and reflected on the data with the observing teacher who was very careful to not offer advice or analysis (Munson, 1998). Teachers reflected on this experience and reported favorable results but noted that finding time to participate in peer observations was an issue. They further suggested a program coordinator was necessary to facilitate the planning and implementation of the peer observation process and that the pre-and post-conferences were essential to the process (Munson, 1998).

Using a slightly different approach to peer observation, Cosh (1999) began with the premise from Lortie (1975) that peer observation had more influence on pedagogical practice than any other form of teacher training. Cosh went on to recommend a reflective

model of peer observations where the primary benefactor of the peer observation was the observer rather than the observed. Cosh asserted the purpose and the focus of the peer observation must be explicitly clear from the beginning so that teachers do not feel a need to evaluate or judge their peers. She also encouraged observed teachers to teach as they normally would, as opposed to putting on a show for the observer. Carefully scheduled and orchestrated observational experiences can create an unrealistic model of actual day-to-day teaching. Cosh purported that, participants in peer observation received the maximum benefit when the observers had a focus in mind for the observation (Cosh, 1999).

Almost all studies at the higher education and K through 12 levels indicated teachers initially felt apprehension about participating in peer observations (Cosh, 1999; Munson, 1998; Pressick-Kilborn & Te Riele, 2008; Siddiqui et al., 2007; Strother, 1989; Whitney & Rorschach, 1986). In most cases, teachers' apprehension faded after participating in peer observation for one semester (Cosh, 1999; Munson, 1998; Strother, 1989; Whitney & Rorschach, 1986). Several researchers recommended using video as an option for teachers apprehensive about opening up their classroom to their peers as a less threatening method of peer observation (Cosh, 1999; Whitney & Rorschach, 1986).

CHAPTER 3

Method

The purpose of this study was to implement peer observations in a K through 6 school as a tool to supplement the training of preservice teachers. In addition to the typical weekly class meetings in which all preservice teachers participated, participants in this study observed veteran peer teachers three times throughout the first semester of the school year and reflected on the observations with the researcher. The goal of this research study was to determine whether peer observations had a real or perceived effect on the pedagogical practices of preservice teachers. If peer observation had a positive effect on the pedagogical practices of preservice teachers, it was the hope of the researcher that there would be a reduction to the attrition rate of early career teachers at Arizona Elementary School through improved training of new teacher candidates using peer observations (Darling-Hammond, 2003; Ingersoll & Strong, 2011).

The following research questions were used to guide this study:

RQ1: How do conversations about teaching practices evolve over time between the preservice teacher participant and the researcher within the context of discussions following peer observations?

RQ2: How do peer observations influence the teaching practices of preservice teachers?

Setting and Participants

Arizona Elementary School is the pseudonym used for the research site in this study. The study occurred during the first semester of the 2015-2016 school year at an elementary school in a small school district in the Phoenix, Arizona, metropolitan area.

Arizona Elementary School is a fairly affluent school serving approximately 700 students in grades preschool through six. Of the students, 9 percent received free or reduced price lunch from the federal lunch program. Moreover, 60 percent of the students attended the school on an open-enrollment basis, meaning they lived outside the boundaries of the school and parents opted to provide transportation to bring their child to the school each day. The breakdown of teaching staff is depicted in Table 1:

Table 1

Teacher Demographics at Arizona Elementary School in the 2015-2016 School Year

Grade	Total # of certified teachers	Teachers with < 2 years experience	Non-certified preservice teachers
Pre-K	1	0	0
K	4	1	0
1	4	0	2
2	3	2	0
3	3	0	1
4	4	1	1
5	4	1	0
6	4	2	1
Non-classroom teachers (certified)	13	0	0
Total	40	7	5

Early career teachers have had a high level of attrition nation-wide (Arizona Department of Education, 2015; DeAngelis & Presley, 2010; Kaiser, 2011; Macdonald, 1999), with similar rates of attrition of new teachers in the district of this research study (J. Marlow, personal communication, December 11, 2015). It was the ultimate hope of

the researcher that the results of this study could be used to reduce the attrition rate of early career teachers at Arizona Elementary School through improved training and staff development of new teacher candidates using peer observations (Darling-Hammond, 2003; Ingersoll & Strong, 2011).

Another reason for selecting preservice teachers as participants for this study was because their lack of teaching experience left them with fewer preconceived ideas about teaching and learning than their more experienced counterparts (Atiles & Pinholster, 2013; Steffy & Wolfe, 2001). As a result, eligibility to participate in this study was limited to teacher candidates in their final semester of a teacher preparation program who had less than one semester of independent full-time teaching experience. Further, participants in this study must have been assigned to Arizona Elementary School during the 2015-2016 school year. This restriction applied because the goal of the study was to affect the teaching practices at this particular school.

Finally, only preservice teachers who opted into the study were able to participate. Although all preservice teachers and current teachers had the opportunity to participate in peer observations as part of a school-wide goal to improve pedagogical practices, only eligible preservice teachers who chose to opt in were included in the data for this study. During the 2015-2016 school year, five preservice teachers were initially eligible for participation in this study; that number was reduced to four by the conclusion of the study. All eligible preservice teachers opted to participate in the study.

The pseudonyms of the study participants were as follows: Claire, Cora, Harper, and Asher. To protect the identity of the participants and to align with the parameters established in the researcher-submitted IRB proposal (see Appendix C for IRB approval

letter), pseudonym names were randomly generated from a list of the most popular names in 2015 found online; genders were disassociated from each participant.

All study participants were students at Arizona State University and enrolled in the ASU iTeachAZ teacher preparation program working on their first college degree. All participants had the same university supervisor who directed their student teaching experience and acted as a facilitator of weekly classes in which the participants learned about the pedagogical skills necessary for success in the student teaching experience.

After providing the potential participants with an overview of the study, all participants enthusiastically consented to participate in the study with one participant ceasing involvement after one round of peer observations due to a change in placement. Cora and Harper were particularly enthusiastic about participating in the study. Both independently approached the researcher with questions and consent forms within an hour of the initial meeting with the participants. None of the participants was married at the time of the study and all participants were between the ages of 23 to 27 years old. Claire and Asher worked at second jobs during their student teaching.

Innovation

I proposed utilizing peer observations of teaching coupled with structured professional learning conversations about best practices in teaching and learning as a supplement to traditional training experiences of the final semester of the teacher preparation program. The goal of peer observations was to engage preservice teachers in an active intellectual process, with the preservice teacher engaging in the intellectual work of professional development learning (Danielson, 2009).

Study participants engaged in three rounds of peer observations jointly with the researcher. Each round of peer observations lasted between 20 to 30 minutes. Peer observation rounds took place in small groups of three or four participants with the researcher guiding the observations. The first round of peer observations took place in September 2015, followed by a second round of peer observations in October 2015, and concluded with a final round of peer observations in November 2015.

Each round of peer observations began with a five-minute discussion in the hallway about the focus of the observation. The researcher asked guiding questions prior to beginning the observation to focus the scope of the observation. The observation cycle concluded with a 5- to 10-minute, post-observation discussion in the hallway outside the classroom to discuss the observation and respond to specific questions from the researcher or participants. The post-observation discussion was recorded using a handheld audio recorder.

The teachers who were observed during the peer observation visits were selected by the researcher based on availability and mastery of the specific component of teaching that participants were observing. The selection of classrooms to visit was primarily determined by the master schedule of the school. Only teachers who were actively teaching a class during the time of a visit were eligible to be observed. Any teacher on a performance improvement plan was not eligible to be observed during peer observation visits. Participation in the study was not a requirement to be observed.

The first round of peer observations, which was in September 2015, focused on the relationship between planning/preparation and the execution of the lesson. Preservice teachers began the observation by reviewing the lesson plan of the observed teacher.

Participants then observed the implementation of the lesson. In addition to questions developed organically through the discussion, the following discussion questions were posed to participants after the initial round of peer observations:

1.   What evidence did you see of planning and preparation?

2.   How did the teacher's planning and preparation affect the pace of the lesson?

3.   What other implications did planning and preparation have for this lesson?

The second round of peer observations took place in October of 2015 and focused on student engagement. Specifically, participants observed cooperative learning strategies designed to have high levels of student engagement. Cooperative learning is the process of individuals working together to achieve a common learning goal. It is differentiated from group work, because in cooperative learning all members of the group are necessary for task completion. Spencer Kagan, president of the Kagan Learning Company, has been widely recognized as an industry leader in cooperative learning training (1994). The following questions helped guide the post-observation discussion after the second round of peer observations:

1. What cooperative learning structures, if any, did you observe in this lesson?

2. If there was a cooperative learning structure in this lesson, how did it impact student engagement?

3. What was the percentage of students engaged during the lesson?

4. Were most students actively engaged or passively engaged?

Finally, the third round of peer observations in November of 2015 focused on discussion and questioning strategies. Participants observed veteran teachers as they led discussions and asked questions that elicited participation from all students. Novice

32

questioning stems were often "Who can tell me . . .?" or "Who knows the answer to . . .?"

Such questioning strategies do not require overt participation from most of the class.

Participants observed and discussed simple changes in the way questions can be asked to

elicit a greater rate of responses from students. Participants responded to the following

questions after the third round of peer observations:

1. When the teacher poses questions, do all students have to answer?

2. How many students participate in the discussions?

3. What is the depth of understanding indicated by the students through the

    discussion? How do you know?

This structure of teachers observing each other and engaging in authentic

professional dialogue with the researcher and each other allowed the preservice teachers

to learn specific skills applicable to their local context from experts who are literally just

down the hall. This also empowered teachers who were being observed to become leaders

on their campus. Teachers who were being observed for a specific skill, such as high

levels of student engagement, further honed their expertise by explaining and modeling

the skill for the preservice teachers.

Observed teachers were selected based on their strengths in each of the areas

noted above. Teachers who were known as leaders in each of the three areas were

observed by participants for 20 to 30 minutes. Observed teachers were selected by the

researcher, who is also the school principal.

To collect data on the efficacy of the participants throughout the study, the

researcher observed each participant in their assigned classroom before any peer

observation visits took place, after all peer observation visits occurred, and once between

the first and second round of peer observation visits. The observation protocol in Appendix A was used to score the participants. These drop-in observations were typically unscheduled, lasted no more than 10 minutes, and served as benchmarks to measure growth toward pedagogical mastery.

Research Design

This study used a mixed methods action research design to study how peer observations affected the teaching practices of preservice teachers in the elementary school where the researcher was the principal. Specifically a convergent parallel mixed methods design was employed for this study. This type of design involved collecting both qualitative and quantitative data, analyzing the findings independently, then comparing the results (Creswell, 2014). Because this study utilized action research, which is iterative in nature (Mills, 2011; Riel, 2010), the data I collected informed the research and innovation as it unfolded.

A mixed methods design was chosen for this action research study to provide triangulation to validate the data collection tools used in this study. The goal of using mixed methods to triangulate the data collection tools was to reach convergence and corroboration (Creswell, 2014). That is, to determine if the data from qualitative and quantitative instruments led the researcher to similar conclusions about the results of the study.

Table 2 shows the research questions addressed in this study and the data collection tools used to answer each research question.

Table 2

Research Questions and Evaluation Methods

Research questions	Evaluation methods
RQ1: How do conversations about teaching practices evolve over time between the preservice teacher participant and the researcher within the context of discussions following peer observations?	Post-observation discussion Interviews Researcher field notes
RQ2: How do peer observations influence the teaching practices of preservice teachers?	Performance assessment rubric Interviews Researcher field notes Self-evaluation

Each of the evaluation methods listed in Table 2 is discussed in depth below. The transcripts of the conversations between the participant and researcher were coded and analyzed to help answer the first research question. Analytic memos, researcher field notes, and teacher interviews were similarly coded and analyzed using focused coding (Saldaña, 2013).

The performance assessment rubric (Appendix A) was used to measure teacher practices at various intervals. The data were then analyzed to determine changes in each preservice teacher's practice over the course of the semester. Researcher field notes were also used to measure teacher progress throughout the semester. Participant teacher interviews were conducted, transcribed, and coded to analyze for themes and to identify teacher changes in practice as a result of participation in the research study.

Data were collected throughout the first semester of the 2015-2016 school year at Arizona Elementary School. The timetable below lists the dates of data collection.

Table 3

Study Timeline

Date	Action
August 2015	Identify possible study participants based on study eligibility requirements
August 2015	Invite participants
August 2015	Participants complete self-evaluation
August 2015	First round of observations using the performance assessment rubric
September 2015	First round of focused peer observations with study participants
September 2015	Second round of observations using the performance assessment rubric
October 2015	Second round of focused peer observations with study participants
November 2015	Third round of focused peer observations with study participants
November 2015	Third round of observations using the performance assessment rubric
November 2015	Interview with study participants
December 2015	Participants complete self-evaluation

Data Collection

Two quantitative instruments and four qualitative data collection instruments

were used in this study. The first quantitative instrument was the performance assessment

rubric developed by the researcher to measure various teaching practices observed within

a classroom. The other quantitative instrument used was the self-evaluation reflection

form. Both instruments are an adaptation of the Danielson teacher evaluation rubric

(Danielson, 2007). The qualitative instruments included transcripts of the discussions

between the researcher and participants following each round of peer observations, teacher interviews, and the researcher's observations. These instruments were used independently of each other throughout the study to collect data from various perspectives.

Performance Assessment Rubric

The performance assessment rubric was an adaptation of the Framework for Teaching developed by Charlotte Danielson (2007; see Appendix A). This tool served as an observation protocol. The rubric measured the three components of teaching: planning and preparation, student engagement, and discussion and questioning techniques.

Teacher participants were observed and rated three times throughout the study in each of the components using the 10 criteria listed on the rubric. The researcher used this tool to collect on each teacher participating in the study between each round of peer observation visits. The data collected after the third visit from the researcher was compared to the baseline data collected in August and September to determine growth using descriptive statistics.

Participants were given the tool at the beginning of the study as a reference for the components that were measured in their own teaching practices as well as the observational visits. Although the criteria on the rubric were directly aligned to the evaluation tool, teachers were still informed each time they were observed that the observation was not associated with any evaluation.

Self-evaluation

All preservice teachers at Arizona Elementary School completed a self-evaluation of performance as part of their participation in this study (see Appendix A). This self-

evaluation tool is identical to the performance assessment rubric (described above), but this tool measures the preservice teachers' perceptions of their abilities at the beginning and end of the study in three components of teaching included in the study. The evaluation rubric was based on the framework for teaching developed by Charlotte Danielson (2007). The original Danielson rubric includes a total of 22 components of teaching divided into four domains.

Participants in this study completed the self-evaluation in August as part of the initial steps of participating in this study. Study participants were then asked to complete the same self-reflection in December to measure perceived changes in efficacy for each of the three components measured.

Interviews

Preservice teacher interviews were conducted in November to determine the preservice teachers' perceptions of peer observations and to better understand the changes participants made to their practice as a result of participating in peer observations. A semi-structured interview protocol was used for this study. Interview questions focused on pedagogical practices, peer observations, and the impact peer observations had on the pedagogical practices of participants. A full list of questions can be found in Appendix B.

Participants were given a copy of the interview questions 24 hours prior to the actual interview. Because the interviews took place during the school day, snacks and beverages were provided during the interviews to make the participants comfortable. The interview questions focused on participants' experiences with peer observations in the current school year.

38

Interviews were conducted one on one with the participants and the researcher and were recorded and transcribed. Participants were all offered a copy of the transcription within one month of the interview to check for accuracy in content and meaning.

Peer Observation Participant Discussion

Immediately following each round of peer observations, the researcher engaged in dialogue with participants about the focus of the observation. The discussion took place immediately following the observation and lasted 5 to 10 minutes. The discussions between the researcher and participants were recorded using a handheld digital recording device.

Because each participant had different experiences with the peer observation, discussions were intended to be open-ended. The researcher asked the participants to notice key elements of the lesson that related to the area of focus. The participants noticed other aspects of the lesson not immediately evident to the researcher. Due to limited time for observation and discussion, the participants and researcher often opted to extend the discussion through later individual conversations. The contents of these conversations were recorded and transcribed. Researcher field notes were also used to annotate these discussions.

Researcher Field Notes

Field notes were collected each time the researcher observed participants in their classroom and immediately following each round of peer observations, but not during peer observations. This allowed the researcher to collect information on the participants to be used in the interviews in November. The field notes were handwritten in a notebook

by the researcher and were later transcribed, coded, and analyzed. During the three observations of participants, field notes included a description of the classroom, the learning objective, and the actions of the students and teacher. The researcher annotated the observation notes with reflections. The notes and reflections were shared with the participants within one day of the observation.

The researcher's field notes captured information that may not be clear in the transcripts, such as descriptions of the attitudes of the classrooms observed, comments made by participants during the actual observations, and reflections of the researcher on the overall experience.

Procedures

At the beginning of the study, all participants completed a self-evaluation of their perceived efficacy in each of the components of teaching and learning that were measured in this study (Appendix A). The same instrument was used by the researcher three times throughout the semester to measure the performance of each of the participants. Finally, all participants completed the self-reflection again at the conclusion of the study. Because the participants could have been unfamiliar with the terms used in the instrument, the researcher provided support to the participants by explaining components and technical vocabulary while completing the pre- and post-self-evaluation.

Three times throughout the study, to measure the participants' actual teaching performance in each of the constructs evaluated in this study, the researcher observed each of the participants teaching lessons in their own classrooms. The initial observation occurred before participating in peer observations. To collect a baseline of the preservice teachers' abilities, the second observation occurred in the middle of the study, and the

final observation took place after the participants had completed three rounds of peer observations but before the interviews.

Research participants Claire, Cora, Harper, and Asher all participated in three rounds of peer observations as part of this study. Following each peer observation visit, Claire, Cora, Harper, and Asher participated in a 5- to 10-minute conversation with the researcher about what they observed and how the observation pertained to their own classroom. Near the conclusion of the study, each of the research participants took part in an interview with the researcher to discuss their experiences with peer observation as a learning tool and any insights they had about the process.

Data Analysis

Data from qualitative and quantitative instruments were collected throughout the first semester of the 2015-2016 school year. A convergent parallel mixed methods design was used, meaning that qualitative and quantitative data were collected and analyzed independently of each other, and then discussed together in the findings (Creswell, 2014). The goal of collecting and analyzing qualitative and quantitative data independently was to determine triangulation through corroboration and convergence.

All analysis of the data collected in this study was evaluated through the lens of adult learning theory. Specifically, the questions of meaningfulness were addressed. According to Lindeman, adult learning should be meaningful and have direct and applicable implications to the lives of the participants (Lindeman, 1926, 1953). It was important to me as the researcher that the experiences be meaningful to each individual participant.

Observational learning theory was at the heart of this study. Bandura posited that learning occurs through observation (Bandura, 1965). This study analyzed how preservice teachers were influenced by peer observation. Interview questions were guided by a goal of understanding how the process of observation influenced the participant.

Quantitative Analysis

Quantitative data from the performance assessment rubric tool and teacher self-evaluations were analyzed by comparing the level of performance in each of the categories at the beginning and end of the study. Descriptive statistics were used to calculate pre-intervention means for each of the four domains of the preservice teachers' self-evaluation, which were compared to the post-intervention means.

Likewise, means of the group on the data set were calculated from each of the scheduled observations. The results were compared to determine if the preservice teacher made progress in pedagogical practices throughout the semester. Basic descriptive statistics were used to present that data.

Qualitative Analysis

Qualitative analysis was used to answer the first research question regarding the evolution of language among the participants. The complexity of teaching and learning resulted in a variety of terms to describe teaching practices. Novice teachers tended to use more basic terms to talk about teaching while experienced practitioners were able to speak about teaching and learning in more technical terms.

As the study progressed, the language used by study participants to discuss teaching and learning increased in complexity. An example of this was participants began using more technical terms to describe teaching practices, such as using the term

42

formative assessment in lieu of *test, quiz, check for understanding, diagnostic testing,* or *evaluation*. Key terms were identified through the analysis to determine the extent to which the complexity in language terms increased.

Interviews and post-observation discussions were audio recorded and then carefully listened to multiple times and transcribed. Next, the transcripts from the interviews and post-observation discussions, along with the field notes, were uploaded to NVivo.

All qualitative data was analyzed in NVivo using thematic analysis (Fossey & Harvey, 2002). Each text was carefully read and codes were associated with every section of the text. Each text was then reread and similar open codes were combined. The similar codes were analyzed and combined across multiple sets of data. Similar codes were combined to generate themes. This process was repeated several times for each qualitative data set until no new themes could be identified (Fossey & Harvey, 2002; Saldaña, 2013). To make assertions about the research questions, once codes and themes had been determined from the data set, the researcher considered the themes in concurrence with results from the other data collection tools.

Through a parallel convergent mixed methods design, data were analyzed throughout the process as the data collected from initial observations informed later observations and interviews (Creswell, 2014). Data from each tool were analyzed separately and then brought together. When similar themes were extracted from the data across multiple tools, the researcher was able to assume the results were valid and reliable. Differing themes would have indicated a need to reevaluate the effectiveness of each tool in answering the research questions of the study.

43

Role of Researcher

My role as the researcher was a participant observer as I was leading the innovation campus-wide. Through action research I was intimately involved in the daily operation of the school and the support of new teachers (Mcniff, 2010; Riel, 2010). I was an observer in many components of the research project, but also played the role of a coach to the preservice teachers.

I also have significant influence over hiring decisions at Arizona Elementary School. Because virtually all preservice teachers are hoping to be hired after completing their program of study, it is conceivable that my role as a hiring administrator may have influenced preservice teachers' willingness to participate in this study. To compensate for this, I met with the preservice teachers as a group with their university supervisor to discuss this study, informed them that participation or non-participation in this study would not influence their eligibility to be hired at Arizona Elementary School, nor would it influence their ability to receive a letter of recommendation from the school principal when the preservice teacher began looking for jobs. Furthermore, I asked all eligible preservice teachers to seek council from their university supervisor before consenting to participate in the study.

Threats to Validity

A major potential threat to the validity of the study was my dual role as researcher and principal at the school. As the principal, in addition to other responsibilities, I was responsible for staff evaluation, discipline, and development for school staff and served as an aide and support for the preservice teachers on campus as well. My positionality as an evaluator and supervisor may have caused preservice teachers to behave differently

when I was in the room. To compensate for this potential threat to validity, I maintained professionalism with all staff and visited each classroom at least twice per week to reduce anxiety when I was in the room. Also, as stated above, I abstained from the role of evaluator for all study participants. Further, this potential threat to the validity of the results is addressed in the results portion of this study.

My investment in the success of the school as well as the implementation of this study could have resulted in experimenter bias as another threat to the validity of this study. To address this threat, a separate evaluator, not associated with this study, conducted observations using the performance assessment rubric to corroborate the findings of the researcher.

The Hawthorne effect refers to the change that occurs in research participants as a result of being a part of a research study. This effect has been known to impact results of studies because participants may change their practice as a result of knowing they are part of a study rather than due to any intervention applied in the study (Smith & Glass, 1987). The Hawthorne effect may have posed a threat to the validity of this study because teachers may have behaved differently than they normally would simply because of the additional attention they received from the school administration. The duration of this study extending to an entire semester should compensate for the Hawthorne effect.

Finally, maturation naturally occurs over the course of time with preservice teachers as they learn new skills and processes in the classroom (Smith & Glass, 1987). This natural maturation effect can be a threat to the internal validity of the study results because it can be difficult to differentiate from the changes that occur in the study participants as a result of participation in the study as opposed to the changes that occur

from time in the classroom. Interviews were used to solicit feedback from the participants

regarding the impact of the intervention on the practices of the participants. The

researcher also has tacit knowledge of the typical rate of maturation seen in preservice

teachers over the course of a semester.

CHAPTER 4

Results

This study attempted to evaluate the effectiveness of peer observation as a tool to train and develop preservice teachers in the semester before they graduate (Hill, 2009; Krieg, 2006; Owens, 2014; Stinebrickner, 1998). Observational learning theory (Bandura & Huston, 1961; Bandura, 1965) and adult learning theory (Lindeman, 1926, 1944, 1953) served as the lens through which the innovation was developed. A review of literature was presented on these learning theories as well as professional development and peer observation.

The focus of this study was to use peer observation as a professional development tool to supplement the training for preservice teachers in their last semester of student teaching. A total of four preservice teachers participated in peer observation rounds followed by discussions about teaching and learning with the researcher. Out of the preservice teachers on campus, five were initially eligible for participation in this study. One participant from the initial five became ineligible after the first round of peer observations due to a change to the mentor teacher assignment.

Table 2 in Chapter 3 shows the research questions addressed in this study and the data collection tools used to answer each research question. Results from this study are presented in two sections. Quantitative data are presented first followed by qualitative data. A convergent parallel mixed methods design was employed, meaning that qualitative and quantitative data were collected and analyzed independently of each other. These will be discussed together in the following chapter (Creswell, 2014).

Quantitative Results

The components of the researcher-created evaluation rubric used in this study are based on the Danielson model of teacher evaluation and assessment, a state-wide recognized model of assessing teaching practices (Arizona Department of Education, 2013, 2014; Danielson, 2007). The researcher has received over 60 hours of training using similar rubrics for evaluating teaching and has achieved high levels of inter-rater reliability with other administrators across the country using the Teachscape evaluation training program (Teachscape, n.d.). Quantitative results were calculated from the self-evaluations of the participants and the researcher observations using this tool.

Self-evaluation

The self-evaluation document consists of ten components divided into three constructs (planning and preparation, engagement, and discussion and questioning techniques; see Appendix A for the complete self-evaluation document). The three constructs were chosen because they represent three foundational constructs of teaching and learning required for success in the classroom (Danielson, 2007, 2009).

After an initial orientation to the study, the original five participants were provided with the self-evaluation document to complete with the help of the researcher. The researcher explained the attributes of each of the 10 components of the document, asking the participants to score themselves on a scale of 1 to 5 with 1 representing no knowledge of the component and 5 representing mastery of the component based on the critical attributes provided in the rubric.

Participants followed a similar procedure at the conclusion of the study, evaluating their perceived self-efficacy of each component of the self-evaluation

instrument at the conclusion of the study. The results of the pre and post scores are presented in Table 4. The participant who did not finish the study due to attrition is not included in Table 4, as all data from that participant has been omitted from this study.

Table 4

Mean Pre/Post Scores on Self-Evaluation Using a 5-Point Scale

		Pre-test	Post-test	Change
Claire	PP	3.25	3.00	–0.25
	E	2.67	3.33	+0.66
	DQ	2.67	3.67	+1.00
	M	2.86	3.33	+0.47
Cora	PP	3.25	4.50	+1.25
	E	3.00	4.00	+1.00
	DQ	3.00	3.33	+1.33
	M	3.08	3.94	+0.86
Harper	PP	2.75	4.75	+2.00
	E	2.67	4.33	+1.66
	DQ	2.67	3.67	+1.00
	M	2.69	4.25	+1.56
Asher	PP	3.00	4.50	+1.50
	E	2.67	4.33	+1.66
	DQ	3.00	3.67	+0.67
	M	2.89	4.17	+1.28
All	PP	3.06	4.19	+1.13
	E	2.75	4.00	+1.25
	DQ	2.29	3.58	+1.29
	M	2.70	3.92	+1.22

PP = Planning and preparation; E = Engagement;
DQ = Discussion and questioning techniques; M = Mean of PP, E, and DQ

A composite score was derived for each component of each participant's self-rating in the pre-assessment and the post-assessment. This score was derived from the mean score of each of the components in each construct of the self-evaluation rubric. Next, an overall mean score for each participant was calculated from the mean of all three constructs. The growth of each participant was calculated for each component and each

49

participant, thus finding the difference between the mean score of the pre-assessment and the mean score of the post-assessment.

As expected, all participants showed growth in perceived efficacy from the beginning to the conclusion of the study. Using a 5-point scale with 1 representing no knowledge of the component and 5 representing mastery of the component based on the critical attributes provided in the rubric, the mean pretest score of all participants was 2.70. The mean of the posttest score of all participants was 3.92 representing a growth of 1.22 points for all participants.

All participants showed growth in each component of the self-evaluation score with the exception of Claire, who showed overall growth but had negative growth in the category of planning and preparation. Claire self-scored at 3.25 in this category at the beginning of the study and 3.00 at the conclusion of this study. This does not mean Claire regressed in actual performance of this category, but only in self-reflection of perceived efficacy. It is possible that the lower score is due to a better understanding or a more critical evaluation of the critical attributes of the component at the end of the study.

Claire showed the least growth overall from the initial self-evaluation ($m = 2.86$) to the post self-evaluation ($m = 3.33$), showing a perceived mean growth of 0.47 points across all components in the self-evaluation. This is consistent with Claire's scores on the performance assessment rubric, also showing the least growth of all four participants.

Harper showed the most growth overall from the initial self-evaluation (2.69) to the post self-evaluation (4.25), showing a perceived mean growth of 1.56 points across all components of the self-evaluation. Harper showed the second highest growth of all four participants on the performance assessment rubric.

The construct of discussion and questioning techniques is the area in which participants showed the highest overall perceived growth over the course of this study with a mean pre-evaluation score of 2.29 across all participants and a mean post-evaluation score of 3.58. This is a growth of 1.29 points on a 5-point scale. Interestingly, discussion and questioning techniques is the construct where participants rated themselves the lowest on the post-evaluation rubric.

The scores on the self-evaluation reflect the participants' perceived efficacy in each of the constructs of the rubric and not their actual abilities. These scores were used to develop interview questions based on the areas of perceived strengths and weaknesses of the participants. Scores may be influenced by a deeper understanding of the nomenclature associated with teaching or a better understanding of their own strengths and weaknesses at the conclusion of the study.

Performance Assessment Rubric

The performance assessment rubric consists of ten components divided into three constructs (planning and preparation, engagement, and discussion and questioning techniques). This is the same instrument used to measure the perceived self-efficacy of participants in the section above and can be found in Appendix A (Danielson, 2007, 2009).

Similar to the analysis of the self-evaluation, for each participant a mean score was derived for each component by averaging all of the scores the participant received within that component. A mean score was then found by averaging the scores of each of the three components for each participant. Change in scores were evaluated from the mean score of each component in the first observation to the mean score of each

component in the third observation. The second observation served primarily as a

benchmark to determine if the change in scores seemed to be linear in progression.

The results of the observations are shown in Table 5.

Table 5

Performance Assessment Scores on 5-Point Scale

		Obs. 1	Obs. 2	Obs. 3	Change from 1-3
Claire	PP	3.00	3.75	4.00	1.00
	E	3.33	3.67	3.67	0.34
	DQ	2.33	3.00	3.00	0.67
	M	2.89	3.47	3.56	0.67
Cora	PP	3.75	4.75	4.75	1.00
	E	4.00	4.67	4.67	0.67
	DQ	4.00	4.00	4.67	0.67
	M	3.92	4.47	4.69	0.77
Harper	PP	3.00	4.00	4.00	1.00
	E	3.00	4.00	4.00	1.00
	DQ	3.00	3.33	3.67	0.67
	M	3.00	3.78	3.89	0.89
Asher	PP	2.50	3.00	3.25	0.75
	E	2.00	2.67	4.00	2.00
	DQ	2.33	3.00	4.00	1.67
	M	2.28	2.89	3.75	1.47
All	PP	3.06	3.88	4.00	0.94
	E	3.08	3.75	4.08	1.00
	DQ	2.92	3.33	3.83	0.91
	M	3.02	3.65	3.97	0.95

PP = Planning and preparation; E = Engagement; DQ = Discussion
and questioning techniques; M = Mean of PP, E, and DQ

Using the performance assessment rubric (Appendix A), all participants showed

growth in each of the constructs. Asher demonstrated the most growth overall with a

mean score of 2.28 on the initial observation and a mean score of 3.75 on the final

observation with an overall growth of 1.47 points. Claire had the least growth and the

lowest mean scores on the final observation. Claire started at a mean score of 2.89 and

ended with a mean score of 3.56, showing a growth of 0.67 points from the beginning to the end of the study.

All constructs showed similar levels of growth with engagement at the highest (1.00 points) followed by planning and preparation (0.94 points), and finally discussion and questioning techniques (0.92 points). It is possible that this growth can be attributed to the natural maturation that occurs when preservice teachers learn the craft of teaching over the course of the semester.

Comparison of Self Evaluation to Performance Assessment Rubric

According to both the self-evaluation tool (completed by the participant) and the performance assessment rubric (completed by the researcher), Claire showed the least growth over the course of the study. Claire had a mean score of 2.86 on the self-evaluation from the beginning of the study. The researcher recorded a mean score of 2.89 on Claire's first observation. This is a difference of only 0.03 points. Near the conclusion of the study, Claire had a mean score of 3.33 on the self-evaluation. The researcher recorded a score of 3.56 for Claire on the third observation. The difference of 0.22 points is the least of all participants.

Conversely, Cora had the highest discrepancy with the researcher ratings at the beginning and end of the study. Cora had self-evaluation scores of 2.83 and 3.94 respectively on pre and post assessments. The researcher recorded Cora at a score of 3.92 on the first observation and 4.69 on the third observation. This is a difference of 1.08 points and 0.75 points respectively, the highest level of discrepancy between the self-evaluation and the performance assessment among all participants. It is notable that Cora self-rated herself lower than the researcher in both cases.

According to the self-evaluation scores, Harper indicated the most self-perceived growth with 1.78 points of growth from the self-evaluation completed at the beginning of the study compared to the self-evaluation completed at the end. Asher reported the second highest level of growth according to the self-evaluation with 1.53 points of change followed by Cora with 1.11 points, and finally Claire with 0.47 points.

The results of the differences between the first and the final performance evaluations are similar to the self-evaluation for Claire and Cora, with Claire showing the least overall growth of 0.67 points and Cora showing 0.77 points of growth. Harper had 0.89 points of growth from the first to the last performance review observation. Asher showed the most growth from the first to the last performance observation in the study with a growth score of 1.47 points.

Qualitative Findings

The remainder of the chapter addresses the research questions through the qualitative results. The researcher took copious notes throughout the research process, particularly following each round of peer observations and after conducting an observation of the participants teaching in their assigned classroom. Transcripts from the post-peer observation discussions, interview transcripts, and researcher field notes were analyzed using NVivo and the results are discussed in this section. Table 6 shows the qualitative data sources analyzed in this study and the word count of each source.

Dominate themes that emerged from the dataset include strategies learned from peer observations, an increase in the level of sophistication of discussions following peer observation visits, more confidence from the participants, and participants valuing peer

observation as a learning tool. Each of the themes and their aligning assertions are discussed in more detail in the following section of this chapter.

Table 6

Description of Qualitative Data Sources

Data Source	Word count
Observation Round 1 transcription	6,182
Observation Round 2 transcription	3,092
Observation Round 3 transcription	2,875
Participant 1 interview	1,472
Participant 2 interview	2,236
Participant 3 interview	1,464
Participant 4 interview	1,517
Researcher field notes	4,849
Total word count	23,687

Transcripts from the observation rounds, interview transcripts, and researcher field notes all worked together to tell the stories of the research participants. The transcripts of the rounds of observations validated the influence of peer observations on teaching practices through comments made by the participants about their own teaching practices when discussing what they observed in the classrooms of other teachers. The interview transcripts captured the perceptions and values of the peer observation process from the research participants. Finally, the researcher's field notes tied the two together from observations made by the researcher about the teaching practices of the participants and the observations made by the participants throughout the rounds of peer observations.

Table 7 lists the themes, evidence, and assertions that emerged from the

qualitative data in this study.

Table 7

Evidence, Themes, and Assertions

Evidence	Themes	Assertions
All participants made reference to specific strategies they employed in their own teaching as a result of seeing the strategy in a classroom on a peer observation visit.	Strategies	Study participants applied what they observed in peer observation visits to their own teaching.
Classroom management was not an area of focus in any part of the study, but each participant referenced the classroom management techniques of the teachers they observed.		Classroom management was a specific strategy that was important to study participants.
During the participant interviews, each participant referenced his or her growth in the area of classroom management, even though this was not a question from the researcher, nor was it a component of the study.		
Participant discussion after a peer observation visit was generally vague and non-descriptive after the first two rounds of peer observation visits. The discussions were much more evidenced-based in the final round of visits.	Sophistication of discussion	Discussions about teaching and learning became more sophisticated and evidenced-based as the study progressed.
In the participant interviews, each participant made an explicit reference to his or her increased level of confidence when engaging in conversations about teaching and learning.	Confidence	Study participants gained confidence in discussions about teaching and learning as a result of participation in peer observation visits.
All participants indicated they perceived peer observations to be a valuable learning tool.	Valuable Participant Perception	Study participants perceived peer observation as a valuable learning tool.
Three of four participants indicated that all teachers should participate in peer observation visits as a professional development tool.		

Strategies Learned from Peer Observation

Study participants applied what they observed in peer observation visits to their own teaching. This assertion directly answers the second research question, "How do peer observations influence the teaching practices of preservice teachers?" Conversations with study participants during peer observation visits and interviews showed they were able to later apply strategies to their own teaching from strategies they gleaned from teachers they observed.

Among various other strategies, classroom management was specifically mentioned by each participant during peer observation discussions and in interviews. The researcher also observed improvements in classroom management techniques used by each of the participants throughout the study. This was notable because it was the only strategy to be specifically mentioned by each participant and was not originally intended to be a part of the scope of the study.

During the interviews, each participant mentioned classroom management as something they learned from this process even though no question was ever asked about classroom management. When asked about what she learned from the peer observation process, Claire replied, "Managing student behavior. Coming in I didn't really know how to do that, so that has completely changed. My views on that have completely changed." Claire went on to compare the classroom management strategies of her mentor teacher she had observed as to classroom management techniques used at her previous student teaching placement. Then after observing a first-grade teacher deal with a disruptive student, Claire related,

I love the way that . . . she pulled the students when they had behavior problems
and talked to them one on one. I think that's been huge and calling a student, not
calling them out but saying, 'Hey, stop what you're doing." Waiting for that time
and pulling them aside. I loved when she kind of made it their choice. It was on
them. "Can you do this, yes or no?" They had to kind of self-evaluate and I think
that was big.

Claire later discussed successfully using this strategy in her classroom with a
disruptive student. Claire developed a strategy to manage student behavior from watching
this teacher and then later honed this strategy through practice. During a visit to Claire's
class, the researcher noticed Claire whispering to a student while the rest of the class was
working on independent practice. The researcher later learned that Claire was privately
redirecting the student's behavior rather than embarrassing the student in front of the
class.

Reflecting on the same first grade lesson, Harper said,

[The observation] made me kind of think about—I reflect on my own teaching as
I was watching them and think about if I do that in my own classroom how would
I handle the situation that they were handing.

Harper went on to compare a similar lesson he taught the same week and how the
lesson would have been improved if he would have used similar strategies. Early in the
semester, Harper would make general sweeping statements to the class to behave when a
few students were talking or off task. As the semester progressed, Harper become more
skilled in addressing individual student behavior, a skill he mentioned several times
throughout the peer observation process.

After observing a fifth-grade classroom use choice board (list of assignments the student may choose from), Cora discussed with the group that she was making a goal to give students more choices in activities through a similar structure. She then reflected on how the observation gave her new ideas on how to effectively use a timer in the classroom. "There was a timer, which I use, very frequently. Even more so, I think, after seeing how she used hers." Cora had previously been using a timer on a smartphone to maintain the pacing of the lesson, but saw the power of showing the timer to the students in a peer observation visit and began using a similar timer in her lessons.

Asher had become frustrated with the low levels of energy from the class in his lessons. After two rounds of peer observation visits, Asher reflected the following to the researcher:

I tend to include more class discussions [as a result of the peer observation visits]. I've noticed that in one of the classrooms. . . . I think it was a second grade classroom, we observed how the teacher had the students engaging in classroom discussions with each other, and I see how excited the kids were and engaged, and I see that effect in my classroom when I use that technique as well.

Most of Asher's lessons in the beginning of the semester were teacher-directed and involved students listening to the teacher while taking notes from a presentation. Initially, when Asher tried to incorporate more discussion into his lessons, students became noisy and difficult to manage. Asher was able to reflect on strategies that worked from other classrooms to improve his own ability to implement effective discussion and questioning techniques in his own classroom. This was particularly evident in the third

round of observations from the researcher. Asher led the class in a rich discussion about the historical concept the class had been studying in the previous unit.

During the initial round of peer observations, Asher was the first to bring up the issue of classroom management. Toward the end of the discussion of the second visit during the first round of peer observations, when the researcher asked if any of the participants had any closing thoughts, Asher responded, "I think for her behavior management, she . . . pulled the student in who was talking. . . . I liked that." Harper and Claire immediately responded in agreement. A similar comment was made by Asher at the end of the third visit during this same round of peer observation visits.

Claire and Cora engaged in a conversation about a classroom management strategy they observed after a third round of peer observation visits. During a conversation about student engagement, Claire abruptly said, "This doesn't really go with the questioning but I think she does a really good job of pulling them when they're being a discipline problem, and addressing that one on one instead of in front of the whole class." Cora then echoed the statement the teacher made to a student in the observation, 'Do you need to go back to your seat or can you manage yourself?' All participants initially had a habit of telling their entire class to "be quiet" or "pay attention" when a few students were talking or off task during a lesson. This ineffective technique was replaced with a more individualized redirection strategy in each participant's classroom by the end of the study.

During an interview with the researcher, Cora explained a strategy she acquired to solicit the attention of the students during a lesson. Cora described a quiet signal she

observed during a peer observation visit and how it compared to what she now does in her own classroom:

> I liked being in [the younger grade] class and seeing her quiet technique because I've got a rambunctious little group of kids. They talk. I talk. My mentor talks. It's not like we're trying to out speak each other. Everyone's voice is always heard in my room, but having a system like she had, where she had Q-U-I-E-T, quiet, and the kids would repeat. I don't use that exact same thing, but I do use quiet strategies more frequently now from seeing her doing them. I do the silent stallion with the fingers in the air. Sometimes, I take a step back and they're like, "What's happening? We don't hear [the student teacher's] voice right now." They'll look at me and I'll be doing something like patting my stomach or patting my head. They'll mimic my movements. That's something that I gained from watching her doing her quiet system with her [students].

Cora understood from the beginning the importance of making sure all students were heard in the classroom. Cora liked a noisy classroom with students sharing ideas and talking about their learning, but could not figure out how to ensure the more confident students did not dominate the class discussion. Through implementing a variety of quiet signals she observed in peer observation visits, Cora was able to manage the discussions in her classroom more effectively so all voices could be heard.

Sophistication of Discussion

Discussions about teaching and learning became more sophisticated and evidenced-based as the study progressed. This assertion responds to the first research question, "How do conversations about teaching practices evolve over time between the

preservice teacher participant and the researcher within the context of discussions following peer observations?"

The observations made by the participants during the initial round of peer observation visits were very simple and lacked specificity. The phrase, "I liked . . ." followed by an observation of something the teacher did was prevalent during the first round of peer observation visits. Harper initially made comments such as, "I liked how she gave them a choice to decide what kind of movement they wanted to do; different letters, that was cool." Asher shared, "I liked how they were working within pairs" and "I liked that to get the students quiet, and she said, 'Okay students be quiet,' and spelled the word Q-U-I-E-T and they were silent. I like that." During this same round of peer observation visits, Claire said, "She has very good classroom expectations set up. She doesn't really have to . . . like during transitions, they're pretty much, they know what to do." These observations were very basic and could be made by anyone visiting the classroom regardless of their level of training in education.

As the study progressed, however, these observations became much more sophisticated and based on evidence. During the second round of peer observation visits, Claire noticed a reading strategy used by a teacher:

> Like with the partner reading, they were both held accountable for reading one page and then the other one. The three seconds with your foot so the other partner can help you with a word if you don't know it at the end. They're working together on the worksheet.

A novice observer may not have noticed how the strategy created equal accountability for all students in the class to participate.

Cora made another astute observation in the third round of peer observation visits:

When they initially began the carpet time, she gathered them using different

patterns. There was no lost education time whatsoever. With that, they were

having to count and they were counting her claps. It was a core response. I mean,

if anything, it would be a better memory builder for them. There was one boy in

the back by you that was playing with his bracelet. That was the only

disengagement that I saw, throughout.

Rather than simply saying whether or not students were engaged in the lesson, Cora

identified the specific strategy the teacher used during transition from one activity to

another to maximize instructional minutes while minimizing negative behavior during the

transition.

During the final round of peer observation visits, Harper posed a question to the

group about how a teacher could have improved a lesson. Asher volunteered a response

detailing a strategy he observed in another classroom:

You could use different strategies to talk to them. Make sure each student has a

different color [pen], or use dry erase markers to write on the desk. Make sure

everyone is using a different color and sharing that color with their groups.

After sharing this strategy, Asher later used it with his class by asking students to write

down their thoughts on a large piece of paper. Each student had a different colored

marker so Asher was able to quickly see who had contributed to the group discussion and

to what degree each student contributed.

Confidence

Study participants gained confidence in discussions about teaching and learning as a result of participation in peer observation visits. When asked in an interview the research question, "How do peer observations influence your teaching practices?" all participants indicated they felt more confident talking about teaching and learning with their colleagues and with other teachers on campus. Participants shared that this led to learning new strategies because they did not shy away from conversations about best practices of teaching.

Cora summed up the following sentiments of the participants in her interview:

People are seeking me out for my perspective and my advice. It's a lot more . . . I have a lot stronger of a role and a presence than I did as freshly coming in a few months ago. I've been here for a year now. This semester's amped up like crazy. I feel like I'm really . . . respected, seems like a strong word, but I feel like people see me as someone that they can get good information from.

Feeling respected and valued as a contributor to the knowledge base of the teachers on the campus led Cora to research and try new strategies to share with the teachers on campus. During lunch, Cora was observed by the researcher in the teacher's lounge with a laptop showing a veteran teacher how to use an online resource for a lesson they had been mutually planning.

Harper expressed similar sentiments in his interview:

I believe I have more of a say. I feel like, I don't know, I feel like I'm a teacher now on the team. I feel like I speak up more and I, for example, with this week

with me taking over I made the decisions with the rest of the first grade team. . . .

it was me. That's totally different from where I started.

As the semester progressed, Harper always respected the expertise of his mentor teacher, but would be seen venturing into conversations with other professionals more often without the mentor teacher present.

When asked how participation in the peer observations visits influenced him, Asher said,

I have more confidence in planning and preparation, in the preparation process. Also delivering . . . my lessons as well. My first semester I was kind of shy and quiet, and this semester, I'm more open and just relaxed, myself, in the classroom.

Asher reported that during team meetings, he was more outspoken because he was confident in what he was doing. Later, other teachers on Asher's team shared with the researcher how much they appreciated the insight Asher had to offer because he came with fresh new ideas.

Peer Observation as a Valuable Learning Tool

Study participants perceived peer observation as a valuable learning tool. When asked if participation in peer observation visits had been beneficial, all study participants stated "yes." Most even added that they wished preservice teachers in their program would participate in peer observation visits. Some even continued participating in peer observations visits on their own when the study had ended.

When asked if participation in the peer observation visits were beneficial, Claire replied,

I think that 100 percent it has been meaningful. I think that observing other

teachers and seeing the different strategies and different ways that they teach is

one of the best beneficial things. I'm a very visual learner. I like seeing what other

people do.

Claire gained insight from seeing other teachers use strategies she had learned about in

preservice classes. Learning about teaching techniques from her coursework and then

seeing them in action and finally practicing the strategy herself was a recipe for success

for Claire.

Cora echoed similar sentiments in her response to the question about whether or

not the visits were meaningful:

I would say "yes" because as a teacher, a teacher candidate at this point, we get

isolated and we see how we do things and how our mentor does things. Of course,

we're taught things in our classroom, but seeing how things work in other

locations. How other people have learned to do things and how they've adjusted

over the years, especially with how many years' experience that we've seen on

this campus. It's changed my viewpoint, I think. I don't feel like I'm looking at this

like a new teacher. I think I'm looking at this with experienced eyes.

Cora went on to say that she would like to continue participating in peer observation

visits throughout her career. "I think it's important for anybody, not just teacher

candidates. I can see myself teaching in ten years and still needing to know something

new or seeing a different way."

Harper shared his thoughts about participation in the peer observation visits,

reflecting on how the process has helped him develop his teaching style:

66

I feel like we're developing our teaching style and we're learning what kind of

teacher we want to be. To observe other teachers, to pinpoint what we want to do

or what we like and what works for us. I think—like to [the first grade teacher],

for an example, that is something I would want to adopt myself in my own

teaching, and you're always reflecting as a teacher candidate. You're always

thinking how I could do something better. So to observe veteran teachers or other

teachers, I feel like it's a good reflection experience and also it kind of—what was

the word I was thinking of—it, oh, come to me. I feel like you're reflecting and

kind of learning what you want to do in the classroom based off of what others are

doing.

Harper understood that his teaching style would not come from simply mimicking his

mentor teacher, but rather from synthesizing his own experiences in the classroom with

ideas and strategies from dozens of other teachers. As Harper observes more teachers, he

will have a broader set of skills to employ in his own classroom when he obtains full

certification.

In his interview, Asher talked about how meaningful the peer observation

experiences had been:

Participation in the peer observation has been meaningful, very meaningful,

actually, to my teaching practice because it's given me an opportunity to observe

different types of teaching strategies and how they are executed differently by

different educators, because everyone's different in the classroom, and everyone's

perception of information is different, so maybe training in the Kagan strategies

are executed out differently. My perception of maybe one thing is different from another teacher.

He went on to say:

> I do feel that it's beneficial for teacher candidates to observe other teachers, because they can observe a variety of teaching techniques that are not taught in the class, or different from their mentor teacher that they're placed with. There's different strategies to be used. Your mentor teacher may stick to one way, but it's good to see other ways of teaching so you can get a feel of how you want to teach.

Asher learned through the peer observation process that there is no right way to teach a lesson, but many different techniques used by different educators. By observing many teachers in the field of teaching, Asher was able to learn which strategies worked best for him and the students he worked with.

Conclusion

The student teaching experience is a time of tremendous professional growth for most preservice teachers. This experience serves as a bridge between the often theoretical world of academia and the practical world of full time teaching. Without proper training during their preservice teaching experience, new teachers may feel overwhelmed to the point of leaving the teaching career altogether. Participants in this research study felt that the peer observation process better equipped them for their first teaching experience by giving them the opportunity to observe dozens of professionals while discussing best practices of teaching and learning in the classroom. It is my hope that this sense of confidence will translate to effective teaching practices when these young professionals

transition from their university experience to full time teachers in the K-12 school

system.

CHAPTER 5

Discussion

In the previous chapter, quantitative and qualitative data were analyzed separately. This chapter discusses the complementarity of the quantitative and qualitative data, as well as the results in relation to the extant literature, lessons learned from the study, limitations of the study, implications for practice, and implications for future research. The research questions that were used to guide this study were:

RQ1:   How do conversations about teaching practices evolve over time between the preservice teacher participant and the researcher within the context of discussions following peer observations?

RQ2:   How do peer observations influence the teaching practices of preservice teachers?

Complementarity of Quantitative and Qualitative Data

Complementarity in this study refers to the extent which the qualitative and quantitative data point to the same outcomes or conclusions (Greene, 2007). The goals of this action research study were to determine whether peer observations had a real or perceived effect on the pedagogical practices of preservice teachers and how participation in peer observations influenced the discussions of preservice teachers about teaching and learning. A secondary goal of this study was to reduce the attrition rate of teachers entering the profession by training and equipping them during preservice training for the challenges they will face in their first year of teaching.

The second research question, "How do peer observations influence the teaching practices of preservice teachers," was answered using both quantitative and qualitative

70

instruments. Both quantitative instruments used in this study showed clear growth from all participants in the components of teaching measured in this study. When rating their own perceived self-efficacy in the components of teaching measured in this study, all four participants indicated they had improved as an educator over the course of the study as evidenced by the results shown in Table 5. Similar trends are seen in the data collected from the performance assessment rubric, which was used to measure the effectiveness of the participant in teaching using three components of a teacher evaluation rubric. Participants showed a range of growth of 0.67 to 1.47 points on the performance assessment rubric from the beginning of the study to the end. This quantitative data answers part of the second research question indicating that peer observation likely has a positive influence on the teaching practices of preservice teachers, but it is the qualitative data that helps to make sense of *how* the peer observations had this influence.

Study participants further attributed their growth in pedagogical practices to increasing the number of skills and strategies they could use by observing other teachers use strategies they were unfamiliar with. Each participant was assigned a mentor teacher to train and guide them throughout the semester, but participants appreciated learning new strategies that their mentor teacher did not regularly use, and then being able to practice those strategies in the safety of their own classroom.

One metric to measure the understanding of various teaching practices used by preservice teachers was to evaluate the sophistication of their language when discussing teaching and learning. All participants in this study increased the level of sophistication in their language during conversations with the researcher over the scope of the study. This evolution from simple observations to complex analysis about the observations was

seen in the number of times specific strategies were referenced, the change from the phrase, "I liked…" to "I noticed . . ." The ability to speak about and engage in conversation about teaching and learning in more sophisticated terms led to better implementation of strategies used in the preservice teachers' own lessons.

This level of language sophistication addressed the first research question, "How do conversations about teaching practices evolve over time between the preservice teacher participant and the researcher within the context of discussions following peer observations." The qualitative results section of the previous chapter show that discussions about teaching and learning become more sophisticated and evidenced-based as the study progressed. As the conversations about teaching practices become more sophisticated and evidenced-based, the quantitative data showed that the preservice teachers also used better teaching strategies to improve their own teaching.

Any adult can walk into a classroom and make observations about what the students are seeing and doing, but it takes a trained professional to recognize the nuances of the strategies veteran teachers use to teach a class. It stands to reason that as participants are able to speak about teaching and learning in more sophisticated terms, they would be better equipped to put into practice the skills and strategies they are able to talk about. This appears to have been the case with the research participants in this study.

Perhaps one of the most telling examples of participants valuing the experience of peer observation was that all participants continued to engage in peer observation visits after the study had concluded. During interviews, most participants indicated that they would like to see teacher preparation programs include a similar model to prepare preservice teachers for real-life classroom experiences.

<center>**Discussion of Results in Relation to the Extant Literature**</center>

The results of the study support the claims made by Albert Bandura on observational learning theory (1989) and Eduard Lindeman on Adult Learning Theory (1926). The results also served to fill a noticeable gap in the literature on using peer observation as a learning tool for preservice teachers.

Observational Learning Theory

Observational learning theory simply states that learning occurs through the observation of others (Bandura, 1971; Bandura & Huston, 1961). Despite the strong evidence to support the effectiveness of observational learning (Bandura & Huston, 1961), many traditional teacher preparation programs continue to emphasize coursework where participants listen to lectures rather than engage in field experience (Ingersoll & Strong, 2011). Most teacher preparation programs include only one semester of student teaching as a capstone experience in the teacher preparation program.

When preservice teachers do finally observe a mentor, the mentor they observe serves in a role as an evaluator of performance, offers guidance from only their own experiences, and is limited to one or two mentors at the most.

The results of this study clearly supported observational learning as an effective method of transferring important pedagogical skills from veteran practitioners to novice preservice teachers. In addition to their own assigned mentors, preservice teachers in this study observed more than nine other professional educators on an elementary campus. All participants referenced very specific skills and strategies they developed from observing other teachers that they did not attain from their time in the classroom. I am not suggesting that higher education institutions abandon coursework, but rather that they

<center>73</center>

look for ways to increase opportunities for preservice teachers to observe more experts in the field of teaching within their local context.

Adult Learning Theory

Adult learners place tremendous value on the level of meaning they receive from their educational experience. If adults do not perceive their learning as meaningful, they will have difficulty engaging in the learning experience (Lindeman, 1926). Comments made by participants in this study about the meaningfulness of the peer observation experience confirmed the validity of this study.

Preservice teachers have many demands placed upon their time and mental energy. Learning activities that are seen as a waste of time have been met with resentment from preservice teachers. However, when preservice teachers engaged in learning activities they perceived as meaningful, they gladly continued in the exercise, even when the assignment requirement had been fulfilled. This was evidenced by the study participants continuing in peer observation visits after the study concluded. When questioned about this, study participants reported they enjoyed the process and found it valuable to their own professional development.

Peer Observation as a Learning Tool for All Teachers

Much has been written on the topic of professional development for teachers (Burns, 2012; Hill, 2009; Postholm, 2012; Roseler & Dentzau, 2013) and training for preservice teachers (Atiles & Pinholster, 2013; Davis, 2013; Goldhaber & Cowan, 2014; Ronfeldt & Reininger, 2012), but interestingly these two concepts are most often studied independently of each other.

Peer observation has already proven to be an effective tool for teacher growth when used with certified teachers (Cosh, 1999; Lortie, 1975; Munson, 1998; Pressick-kilborn & Riele, 2009; Pressick-Kilborn & Te Riele, 2008; Strother, 1989; Whitney & Rorschach, 1986). This study showed similar methods of peer observation are effective in training preservice teachers. If this is the case for the particular niche of peer observation, it warrants further research on other areas of research-based effective professional development methods that could be used to train preservice teachers.

Lessons Learned

I quickly learned through conversations with the study participants that, in spite of their busy schedules, they valued the time to visit classrooms on campus with an experienced educator and appreciated the face time it gave them with the school principal (who was also the researcher in this study). One participant commented in a conversation with the researcher that she would someday like to work at a school that uses peer observations regularly and that visiting classrooms with the principal gave her a unique perspective into the skills and attributes the principal valued at the school.

Other conversations with the research participants revealed that preservice teachers in this study had strong opinions about the strengths and weaknesses of their teacher preparation program. Most participants had very specific suggestions about how to restructure certain elements of the teacher preparation program to make the experience more beneficial for their own professional growth. A common theme was that participants valued time in the K-12 classroom working directly with teachers and students. None of the participants suggested decreasing the coursework, but rather supplementing the coursework with more field experience.

One of the greatest lessons learned for me as the researcher occurred after observing a very ineffective lesson with the study participants. Initially, the study participants did not want to say anything to criticize the teacher or the lesson they had observed so the discussion was very limited. After I asked a question about how the lesson could have been improved, all participants had several suggestions. Immediately following that discussion, I realized I had never given the participants permission to observe critically. After a group discussion about the fact that every lesson can be improved or simply taught in a different way, the discussions from participants were more insightful.

Limitations of Study

A major limitation of this study was related to the number of factors that influence a preservice teacher's growth and development. The goal of this research study was to determine whether peer observations had a real or perceived effect on the pedagogical practices of preservice teachers as determined by the conversations they have about teaching and learning. While it is certainly the case that all participants demonstrated real growth in the use of effective pedagogical practices, many factors may have contributed to this growth, making it hard to determine the amount of impact that was made by the peer observations as opposed to other factors.

Experience, coaching from the preservice teacher coordinator, coaching from their mentor, and continued coursework are just some of the factors that may have influenced the natural maturation process of the participants. As study participants gained more experience in the classroom, they likely acquired new vocabulary terms that could influence the complexity of their conversations about teaching and learning. Likewise,

guidance from sources outside of this study such as their assigned mentor teacher or from their preservice teacher coordinator was likely to have influenced the participants.

The sample size of this study may have been another limited factor. A larger sample of participants would have resulted in a broader range of background experiences among the participants, which may have brought to light other influencing factors that were not accounted for in this study. The preservice teachers in this study were all in their second semester of student teaching in the iTeachAZ Teacher Preparation Program at Arizona State University. Would students in a similar program or in their first semester of student teaching experience similar results?

Researcher bias was a limitation of the study because I served in the roles of researcher, data collector, and school principal. As the researcher conducting this study, I have a vested interest in the success of the study. Although I have no direct evaluatory role over the preservice teachers, my role as the principal may have caused the participants to want to impress me in order to be considered for a full-time position in the future. To prevent researcher bias from influencing the results of this study, I tried to let the experiences of the participants speak for themselves through direct quotes whenever possible.

Finally, this study did not determine any correlation between the specific strategies and skills observed by participants and the rate in which those strategies were employed in their own practice. For example, when participants watched a strategy being used by a veteran teacher, how often did the participants begin using that same strategy in their classrooms? Of the strategies that participants did adopt, to what degree of fidelity were the strategies used?

Implications for Practice

I will continue to use peer observations as a learning tool for preservice teachers on my campus. Of the four participants who completed this study, I would feel comfortable hiring any of them to work at my elementary school.

Through the rich discussions about teaching and learning that followed each peer observation visit, I was able to develop a better understanding of the strengths and weaknesses of each participant. Areas of misconception were immediately identified and corrected and I was able to show real life examples of the teaching strategies that were discussed.

Taking what I have learned from the preservice teachers who participated in peer observation visits, I will expand the use of peer observation to all teachers in my elementary school next year. Because the teachers on my campus have experience teaching and know how to identify specific best-practice strategies, I will ask the teachers to help identify an area of focus for each of the visits.

Broader implications for practice include teacher preparation programs expanding their program of study to include regular intervals of peer observation using the model presented in this study. Unlike traditional teacher preparation programs that include several semesters of coursework followed by a single semester of student teaching, the results of this study support a program that includes observation of master teachers integrated throughout a teacher training program.

This research also has implications for practicing teachers. Schools and districts may consider changes to their professional development program to abandon traditional "sit and get" professional development experiences for teacher in favor of peer

observation as a professional development tool. Teachers engaged in peer observation as a professional development tool learn directly from peers in the same building, which creates a natural support system when implementing new learning.

Implications for Further Research

This study confirmed that preservice teachers at the school in which this study took place valued peer observation as a learning tool for their own professional growth. Further research on the topic would need to be conducted to determine if this is true for other preservice teachers in this teacher preparation program and if teachers in similar programs would experience the same result.

A longitudinal study is warranted to determine if participation in this type of training has any impact on attrition once preservice teachers enter the teaching profession. Many teachers leave the teaching profession before they develop mastery of their job. If peer observation is useful in giving teachers skills to be successful early in their career, attrition rates may be impacted.

It would be interesting to replicate the study with two groups of participants and have one group use video lessons for their peer observation visits. If video observations have the same effect as in-person peer observations, exemplar videos could be used to reach a broader audience of preservice teachers. Scheduling constraints could be significantly reduced if video observations had a similar impact on preservice teachers as in-person observations.

Finally, this study focused on utilizing peer observations as a learning tool for preservice teachers. Further study should be conducted to evaluate the influence of peer observation as a learning tool for early career teachers, veteran teachers, and for teachers

nearing retirement. Do more experienced teachers benefit in a different way from peer observations because of the wealth of experience they have to draw from?

Conclusion

Teaching is hard work. It is also arguably the most important work in the world. Teachers transmit society's culture, educate our youth, and care for our most vulnerable and precious citizens every day. With 17 to 33 percent of the nation's teachers leaving the profession within their first five years (Darling-Hammond, 2010; Kaiser, 2011; Kopkowski, 2008), we are facing a national crisis that extends beyond the doors of our schools. American schools need well-trained and well-equipped teachers to do the important work of preparing the next generation to take the reins of society and usher humanity into the next era of progress. A strong society has a foundation of well-educated citizens. Well-educated citizens are created by skillful teachers at all levels of the educational experience.

Peer observation has proven to be an effective tool to supplement the training and development of the next generation of teachers. By giving preservice teachers authentic training through peer observation, these teachers gain the skills necessary to be successful through the most difficult years of teaching and will last long enough in the classroom to perfect their craft and impact thousands of students over the course of a career.

Peer observation as a learning tool has the added benefit of bringing a sense of professionalism back to the teaching profession. No longer will outside "experts" or consultants need to be brought in to train and develop teachers, because the true experts are in the classrooms working with kids every day. Master teachers who want to share their expertise with others will no longer have to leave the classroom to become

instructional coaches or administrators to make a positive contribution to the development of others around them.

For decades, surgeons have been required to undergo hundreds of hours of observation before gaining full certification in the medical profession. This residency requirement has been in place to ensure doctors learn all the nuances of their craft from experts in the field before making life and death decisions. Likewise, the education of our nation's youth is simply too important to ignore the importance of peer observations to train the next generation of teachers.

REFERENCES

Anyon, J. (1997). *Ghetto schooling*. New York: Teachers College Press.

Arizona Department of Education. (2013). *2012-2013 October 1st enrollment by type, gender and ethnicity.* Retrieved from http://www.azed.gov/research-evaluation/arizona-enrollment-figures/

Arizona Deparment of Education. (2014). *Teacher/principal evaluation.* Retrieved from http://www.azed.gov/teacherprincipal-evaluation/

Arizona Department of Education. (2015). *Educator retention and recruitment report.* Retrieved from http://www.azed.gov/wp-content/uploads/2015/02/err-initial-report-final.pdf

ARS§15-203(A)(38), Pub. L. No. ARS§15-203(A)(38) (2011).

Atiles, J., & Pinholster, L. (2013). Student teaching: Reflections of a relentless journey. *Journal of Early Childhood Teacher Education*, *34*(4), 308–319. http://dx.doi.org/10.1080/10901027.2013.845632

Bandura, A. (1965). Vicarious processes: A case of no-trial learning. *Advances in Experimental Social Psychology*, 1–55. Retrieved from http://www.sciencedirect.com/science/article/pii/S0065260108601021/pdf?md5=324219452fa6b3657e87db81b5bdf4e3&pid=1-s2.0-S0065260108601021-main.pdf&_valck=1

Bandura, A. (1971). *Psychological modeling: Conflicting theories*. New Jersey: Transaction Publishers.

Bandura, A., & Huston, A. (1961). Identification as a process of incidental learning. *Journal of Abnormal and Social Psychology*, *63*(2), 311–318. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/13864604

Bell, A., & Mladenovic, R. (2007). The benefits of peer observation of teaching for tutor development. *Higher Education*, *55*(6), 735–752. http://dx.doi.org/10.1007/s10734-007-9093-1

Boatright, B., Gallucci, C., & Swanson, J., Van Lare, M., & Yoon, I. (2009). Medical residency goes to school. *Journal of Staff Development, 30*(3), 18-20, 22. Retrieved from http://eric.ed.gov/?id=EJ850376

Burns, M. (2012). Immersive learning for teacher professional development. *eLearn, 4*(1). http://doi.org/10.1145/2181207.2181208

Butler, D. L., & Schnellert, L. (2012). Collaborative inquiry in teacher professional development. *Teaching and Teacher Education*, *28*(8), 1206–1220. http://dx.doi.org/10.1016/j.tate.2012.07.009

Chamberlain, J. M., D'Artrey, M., & Rowe, D. (2011). Peer observation of teaching: A decoupled process. *Active Learning in Higher Education*, *12*(3), 189–201. http://dx.doi.org/10.1177/1469787411415083

Clandinin, D. J., Long, J., Schaefer, L., Downey, C. A., Steeves, P., Pinnegar, E., . . . Wnuk, S. (2015). Early career teacher attrition: Intentions of teachers beginning. *Teaching Education*, *26*(1), 1–16. http://dx.doi.org/10.1080/10476210.2014.996746

Clark, S. K., & Byrnes, D. (2015). What Millennial preservice teachers want to learn in their training. *Journal of Early Childhood Teacher Education*, *36*(4), 379–395. http://dx.doi.org/10.1080/10901027.2015.1100148

Cosh, J. (1999, January). Peer observation: A reflective model. *ELT Journal*, *53,* 22–27. http://dx.doi.org/10.1093/elt/53.1.22

Creswell, J. W. (2014). *Research design* (4th ed.). Thousand Oaks: Sage.

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Danielson, C. (2009). *Talk about teaching*. Thousand Oaks, CA: Corwin Press.

Darling-Hammond, L. (2003). Keeping good teachers. *Educational Leadership*, *60*(8), 6-8. Retrieved from http://web.a.ebscohost.com.ezproxy1.lib.asu.edu/ehost/pdfviewer/pdfviewer?sid=1367368a-0ee5-445f-a38f-75fdfb95c9d2%40sessionmgr4002&vid=1&hid=4104

Darling-Hammond, L. (2010). *The flat world and education*. New York: Teachers College Press.

Davis, J. S. (2013). Storying the student teaching experience : Trying on teaching personae. *Clearing House, 86*(3), 7–41. http://dx.doi.org/10.1080/00098655.2013.773271

DeAngelis, K. J., & Presley, J. B. (2010). Toward a more nuanced understanding of new teacher attrition. *Education and Urban Society*, *43*(5), 598–626. http://dx.doi.org/10.1177/0013124510380724

Dewey, J. (1916). *Democracy and education*. New York: MacMillan Publishing.

DuFour, R., & Marzano, R. J. (2011). *Leaders of learning*. Bloomington, IN: Solution Tree Press.

Fossey, E., & Harvey, C. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychology, 36*(6), 717-3732. Retrieved from http://onlinelibrary.wiley.com/doi/10.1046/j.1440-1614.2002.01100.x/full

Goldhaber, D., & Cowan, J. (2014). Excavating the teacher pipeline: Teacher preparation programs and teacher attrition. *Journal of Teacher Education*, *65*(5), 449–462. http://dx.doi.org/10.1177/0022487114542516

Greene, J. C. (2007). Mixed methods data analysis. In *Mixed methods in social inquiry* (pp. 142–163).

Hill, H. C. (2009). Fixing teacher professional development. *The Phi Delta Kappan*, *90*(7), 470–476.

Hill, H. C. (2013). Professional development A broken system of professional DELTA Image. *Liquid Library, 90*(7), 470–476.

Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research*, *81*(2), 201–233. http://dx.doi.org/10.3102/0034654311403323

Kaiser, A. (2011). Beginning teacher attrition and mobility: Results from the first through third waves of the 2007-08 beginning teacher longitudinal study. *National Center for Education Statistics*. Retrieved from http://eric.ed.gov/?id=ED523821

Kardos, S., & Johnson, S. M. (2007). On their own and presumed expert: New teachers' experience with their colleagues. *The Teachers College Record*, *109*(9), 2083-2106. Retrieved from http://www.tcrecord.org/Content.asp?contentid=12812

Kaufman, T., & Grimm, E. (2013). *The transparent teacher*. San Francisco: Jossey-Bass.

Knowles, M. S., & Holton, E. F., III., & Swanson, R. A. (1998). *The adult learner: The definitive classic in adult education and human resource development* (5th ed.). Woburn, MA: Butterworth-Heinemann.

Kopkowski, C. (2008). Why they leave. *National Education Association*. Retrieved from http://www.nea.org/home/12630.htm

Krieg, J. M. (2006). Teacher quality and attrition. *Economics of Education Review*, *25*(1), 13–27. http://dx.doi.org/10.1016/j.econedurev.2004.09.004

Ladd, H. F. (2011). Teachers' perceptions of their working conditions: How predictive of planned and actual teacher movement? *Educational Evaluation and Policy Analysis*, *33*(2), 235–261. http://dx.doi.org/10.3102/0162373711398128

Lindeman, E. (1926). *The meaning of adult education*. New York: New Republic.

Lindeman, E. (1944). New needs for adult education. *Annals of the American Academy of Political and Social Science*, *231*, 115–122. Retrieved from http://www.jstor.org/stable/1023178

Lindeman, E. (1953). Like life itself. *The Journal of Higher Education*, *24*(4), 191-194. Retrieved from http://www.jstor.org/stable/1976223

Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.

Macdonald, D. (1999, November). Teacher attrition: A review of literature. Teaching and Teacher Education. *Science Direct, 15*(8), 835–848. Retrieved from http://www.sciencedirect.com/science/article/pii/S0742051X99000311

Mary Lou Fulton Teachers College. (2014). *iTeachAZ*. Retrieved September 20, 2014, from https://education.asu.edu/iteachaz

Mcniff, J. (2010). *Action research, transformational influences: Pasts, presents and futures.* Retrieved from http://www.jeanmcniff.com/items.asp?id=11

Mills, G. (2011). *Action reserach: A guide for the teacher researcher* (5th). Boston: Pearson.

Munson, B. R. (1998). Peers observing peers: The better way to observe teachers. *Contemporary Education*, *69*, 108-110.

Nelson, R., & Thompson, M. (1963). Why teachers quit: Factors influencing teachers to leave their classrooms after the first year. *The Clearing House*, *37*(8), 467-472. Retrieved from http://www.jstor.org/stable/30194407

Owens, C. (2014). Teacher attrition and mobility : Teacher attrition and mobility. *National Center for Education Statistics*. Retrieved from http://nces.ed.gov/pubs2014/2014077.pdf

Palmer, P. J. (1998). *The courage to teach : Exploring the inner landscape of a teacher's life*. San Francisco, CA: John Wiley & Sons. Retrieved from http://web.b.ebscohost.com.ezproxy1.lib.asu.edu/ehost/ebookviewer/ebook/bmxl YmtfXzI2MDQ2X19BTg2?sid=26d990cf-c2ab-4526-97f4-405d0656780e@sessionmgr110&vid=1&format=EB&rid=1

Pink, D. (2009). *Drive: The surprising truth about what motivates us*. New York: Riverhead Books.

Pogodzinski, B. (2013). Collegial support and novice teachers' perceptions of working conditions. *Journal of Educational Change*, *15*(4), 467–489. http://dx.doi.org/10.1007/s10833-013-9221-x

Postholm, M. B. (2012). Teachers' professional development: A theoretical review. *Educational Research, 54*(4), 405–429. http://doi.org/10.1080/00131881.2012.734725

Pressick-kilborn, K., & Riele, K. (2008). Studying teacher education: A journal of self-study of teacher education practices. *Science Direct, 4*(1), 37–41. http://dx.doi.org/10.1080/17425960801976354

Riel, M. (2010). *Understanding action research.* Retrieved from http://cadres.pepperdine.edu/ccar/define.html

Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? *Teaching and Teacher Education*, *28*(8), 1091–1106. http://dx.doi.org/10.1016/j.tate.2012.06.003

Roseler, K., & Dentzau, M. W. (2013). Teacher professional development: A different perspective. *Cultural Studies of Science Education*, *8*(3), 619–622. http://dx.doi.org/10.1007/s11422-013-9493-8

Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). Los Angeles: Sage.

Scott, S. M. (2012). Go ahead . . . Be social: Using social media to enhance the twenty-first century classroom. *Distance Learning*, *9*(2), 54–59.

Siddiqui, Z. S., Jonas-Dwyer, D., & Carr, S. E. (2007). Twelve tips for peer observation of teaching. *Medical Teacher*, *29*(4), 297–300. http://dx.doi.org/10.1080/01421590701291451

Smith, M. L., & Glass, G. V. (1987). *Research and evaluation in education and the social sciences.* Englewood Cliffs: NJ: Prentice-Hall.

Steffy, B. E., & Wolfe, M. P. (2001). A life-cycle model for career teachers. *Kappa Delta Pi Record*, *38*(1), 16–19. http://dx.doi.org/10.1080/00228958.2001.10518508

Stinebrickner, T. (1998). An empirical investigation of teacher attrition. *Economics of Education Review*, *17*(2), 127–136. Retrieved from http://www.sciencedirect.com/science/article/pii/S027277579700023X

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). *Professional learning communities: A review of the literature*. http://dx,doi.org/10.1007/s10833-006-0001-8

Strother, D. B. (1989). Peer coaching for teachers: Opening classroom doors. *Phi Delta Kappan*, *70*(10), 824–827. Retrieved from http://www.jstor.org/stable/20404040

Sullivan, P. B., Buckle, A., Nicky, G., & Atkinson, S. H. (2012). Peer observation of teaching as a faculty development tool. *BMC Medical Education*, *12*, 26. http://dx.doi.org/10.1186/1472-6920-12-26

Taylor, M., Yates, A., Meyer, L. H., & Kinsella, P. (2011). Teacher professional leadership in support of teacher professional development. *Teaching and Teacher Education*, *27*(1), 85–94. http://doi.org/10.1016/j.tate.2010.07.005

Teachscape. (n.d.). T*eachscape reflect: Manage and conduct evaluations that matter to instructional leaders, teachers, and students.* Retrieved January 4, 2015, from http://www.teachscape.com/products/reflect

Trotter, Y. (2006). Adult learning theories: Impacting professional development programs. *Delta Kappa Gamma Bulletin*. Retrieved from http://wed.siu.edu/Faculty/CSims/586/Adult Learning Theories Impacting Professional Development Programs article.pdf

Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, *54*(2), 143–178. http://dx.doi.org/10.3102/00346543054002143

Weiss, E. M. (1999). Perceived workplace conditions and first-year teachers' morale, career choice commitment, and planned retention: A secondary analysis. *Teaching and Teacher Education*, *15*, 861–879. Retrieved from http://www.sciencedirect.com/science/article/pii/S0742051X99000402

Whitney, R., & Rorschach, E. (1986). Relearning to teach: Peer observation as a means of professional development. *English Education, 18,* 159-172.

Wideen, M., Mayer-Smith, J., & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research*, *68*(2), 130–178. Retrieved from http://dx.doi.org/10.3102/00346543068002130

Wieland, M. L., Halvorsen, A. J., Chaudhry, R., Reed, D., McDonald, F. S., & Thomas, K. G. (2013). An evaluation of internal medicine residency continuity clinic redesign to a 50/50 outpatient-inpatient model. *Journal of General Internal Medicine*, *28*(8), 1014–9. Retrieved from http://doi.org/10.1007/s11606-012-2312-1

Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology, 56*(3), 407–415.

APPENDIX A

PERFORMANCE ASSESSMENT RUBRIC

Performance Assessment Rubric

TEACHER NAME: SCORE: _____ / 50

DATE OF OBSERVATION:

Rubric adapted from the Charlotte Danielson Framework for Teaching

	Exemplary (5)	(4)	Proficient (3)	(2)	Unsatisfactory (1)
Planning & Preparation	Teacher connects learning outcomes to previous and future learning.	Evidence of both 3 & 5	Outcomes are related to "big ideas" of the discipline.	Evidence of both 1 & 3	Outcomes do not represent important learning in the discipline.
	Outcomes are differentiated to encourage individual students to take educational risks.	Evidence of both 3 & 5	Outcomes are suitable to groups of students in the class, differentiated where necessary	Evidence of both 1 & 3	Outcomes are not suitable for many students in the class.
	Teacher provides a variety of appropriately challenging resources that are differentiated for students in the class.	Evidence of both 3 & 5	Teacher provides a variety of appropriately challenging resources	Evidence of both 1 & 3	Materials are not engaging or meet instructional outcomes.
	Lesson plans differentiate for individual student needs.	Evidence of both 3 & 5	The plan for the lesson or unit is well structured, with reasonable time allocations	Evidence of both 1 & 3	Lesson plans are not structured or sequenced and are unrealistic in their expectations.

	Exemplary (5)	(4)	Proficient (3)	(2)	Unsatisfactory (1)
Engagement	Virtually all students are highly engaged in the lesson.	Evidence of both 3 & 5	Most students are intellectually engaged in the lesson.	Evidence of both 1 & 3	Few students are intellectually engaged in the lesson.
	Students have an opportunity for reflection and closure on the lesson to consolidate their understanding.	Evidence of both 3 & 5	The pacing of the lesson provides students the time needed to be intellectually engaged.	Evidence of both 1 & 3	The lesson drags, or is rushed.
	Students have extensive choice in how they complete tasks.	Evidence of both 3 & 5	Students have some choice in how they complete learning tasks.	Evidence of both 1 & 3	Students have no choice in how they complete tasks.
Discussion & Questioning Techniques	Students initiate higher-order questions.	Evidence of both 3 & 5	Teacher uses open-ended questions, inviting students to think and/or offer multiple possible answers.	Evidence of both 1 & 3	Questions are rapid-fire, and convergent, with a single correct answer.
	Students extend the discussion, enriching it.	Evidence of both 3 & 5	The teacher builds on uses student responses to questions effectively.	Evidence of both 1 & 3	All discussion is between teacher and students; students are not invited to speak directly to one another.
	Students invite comments from their classmates during a discussion.	Evidence of both 3 & 5	Discussions enable students to talk to one another, without ongoing mediation by the teacher.	Evidence of both 1 & 3	A few students dominate the discussion.

APPENDIX B

SEMI-STRUCTURED INTERVIEW PROTOCOL

Interviewer Introduction, Thank you, & Purpose	Thank you for participating in this interview. Your responses will help guide the professional development experiences of teachers on our campus. This interview will be recorded and transcribed, but all identifying information will be redacted in the transcription and all audio recording. Do you understand? [wait for response]. Do I have your permission to proceed with this interview being recorded? [wait for response]. This interview will take between 25-30 minutes and will focus on questions about your experience with peer observations. There are no right or wrong answers. Think of this as simply a conversation about your experience with professional development as a teacher. You have the right to not answer any question or stop participating in this interview at any time. Do you have any questions? [wait for response].
Questions	1. Provide a brief (1-2 min) overview of your teaching experience. 2. Has participation in peer-observations been meaningful to your teaching practice? If so, how? 3. Describe the peer-observation experiences you have participated in this year. 4. Have the peer-observations influenced your teaching practice? If so, how? 5. Can you describe a time when you did something different in your classroom because of something you observed in a peer-observation? 6. How many times in an average week do you engage in professional conversations about pedagogical practices with colleagues? 7. Are there any terms or vocabulary you now use more regularly as a result of your participation in peer observations?

Recruitment & Consent Email	As a doctoral research student at ASU, I am currently conducting a research project on peer observation as a professional development tool for early career teachers. As a professional new to teaching, I would very much appreciate your input on your experiences with peer observation.
	I would love to have a conversation with you about your experiences with peer observation and to find out what has been effective or ineffective for you.
	Legal Stuff & What to Expect:
	This is 100% optional. If you choose to participate, I will interview you for approximately 25-30 minutes before or after school or at your convenience during the school day. The conversation would be recorded and transcribed for use in my action research project, but your name and all identifying information will be omitted in all transcriptions, recordings, and reporting of the data. Your name or information will not be associated with the published data, nor will anything you disclose affect any performance review.
	Please let me know if you are interested in participating and when you are available. If you do not want to participate, that is completely fine.
	Matt Schenk

APPENDIX C

APPROVAL LETTER

ASU Knowledge Enterprise Development

EXEMPTION GRANTED

Melanie Bertrand
Division of Educational Leadership and Innovation - West
-
Melanie.Bertrand@asu.edu

Dear Melanie Bertrand:

On 8/4/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Teaching the Teachers: Peer Observations in K-8 Classrooms
Investigator:	Melanie Bertrand
IRB ID:	STUDY00002942
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Recruitment Email.pdf, Category: Recruitment Materials; • Letter of Support from CCUSD, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • SCHENK IRB Cert 10.05.2013.pdf, Category: Other (to reflect anything not captured above); • Study Timeline.pdf, Category: Participant materials (specific directions for them); • Interview Protocol.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • SCHENK IRB Protocol 7.2015.docx, Category: IRB Protocol; • Self Assessment.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Consent Letter.pdf, Category: Consent Form; • Performance Assessment Rubric.pdf, Category:

	Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 8/4/2015.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Matthew Schenk
        Matthew Schenk