Learning Teaching

Reciprocal Learning

by

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Doctor of Education

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ABSTRACT

This research is a reversal of the traditional concept of the student-teaching research experiment. Instead of studying the clear and stated goal of an apprenticeship, that of a pupil learning from the tutelage of a master, the focus here is on what a mentor-teacher learns from a student-teacher. During the act of teaching a novice, what can a mentor-teacher learn about her own practice, while demonstrating it to a pre-service teacher? Using the conceptual framework of the National Board for Professional Teaching Standards' Architecture of Accomplished Teaching, and using it within a framework centered around cognitive coaching and reciprocal mentoring, this action research study implemented an intervention that called for series of five cognitive coaching cycles between a mentor- and student-teacher designed to foster dialogue and reflection between them. The ultimate aim of this case study was to help determine what a mentor-teacher learned about her own practice as a result of mentoring a student-teacher. Qualitative data were collected over sixteen weeks in a charter high school. Five findings were identified created after the data were analyzed using a grounded theory approach , and four conclusions were drawn about the intervention's role in the mentor-teacher's reciprocal learning.

DEDICATION

I dedicate this dissertation and the work, struggle, and triumph it represents to my mom, my sister Audra, my step dad Dwight, Dad and Laurie; without their support since the 3rd grade and my tutoring sessions in the summer of 1984, I never would have never decided to be a teacher in the first place.

Also I dedicate the work of this paper to every student who has failed and hated systems not prepared to build their success.

ACKNOWLEDGMENTS

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Chapter 1 Introduction and Context

South Ridge High School (SRHS) is a Title I charter school in an urban setting in Phoenix, Arizona. In its second year of operations, the school achieved higher tests scores on the state achievement tests than eight high schools in the competing public high school districts (Arizona State Department of Education Accountability Division, 2010a) and zip codes. In its third and fourth years, the school continued to outscore all local high schools in the surrounding community and a large part of Maricopa County, on all three sections (writing, reading, and mathematics) of the Arizona Instrument to Measure Standards, commonly known as the AIMS (Arizona State Department of Education Accountability Division, 2010b). These data afforded the school a bronze medal in the 2009 *US News and World Report* Best High Schools in America rankings (2010).

I am the second and current Curriculum Coach at this high school. My responsibilities are similar to those of a dean or vice principal of curriculum and instruction. I oversee both curricula and instruction and answer directly to the principal. Together, with the assistant principal, we negotiate, draft, and implement school policy for the fifteen-room schoolhouse. We also oversee all personnel.

The coaching of teaching personnel was one of the main reasons the Curriculum Coach before me found the position so cumbersome and left voluntarily for a demotion (M. Blankenship, personal communication, July 22, 2008). A frequently reported struggle for him, indeed many instructional coaches

in charter schools, was determining how to hire, support, and ultimately retain highly qualified teachers in the classroom (Hill, 2006; Kayes, 2006).

Charter schools in the state of Arizona are not required to hire state certified teachers. Instead candidate teachers are employable in charter schools with a bachelor's degree in the academic discipline they teach; they may be able to teach without ever having to take an education class. This may explain the results of my earlier pilot survey of 14 district curriculum coaches where participants consistently reported perceptions that teachers and teaching candidates were under-qualified (McCloy, 2010). The school's administration, in fact the entire charter district, continues to have a vested interest in training and developing its mostly pre-certified and or non-certifiable teaching recruits (see Appendix A) and, ultimately, retaining them in their schools (McCloy, 2010).

As the Curriculum Coach, my job is part instructional coach and part direct supervisor of sixteen teachers, two paraprofessionals, and four to eight undergraduate and graduate, pre-service, student-teaching interns and student-teachers a semester. The duties of my position are to coach and develop all educators. However, what I too often find in the data gathered from Federal Title I and district surveys is that the veteran teachers report being unsatisfied or unsupported compared to the new teachers on whom I and the former curriculum coach have inordinately focused (McCloy 2008). Veteran teachers generally feel unsatisfied about the amount of time they receive from the Curriculum Coach, including my predecessor and myself (McCloy 2009; McCloy 2010). The analysis

of these data resulted in the administration's need to reconsider what professional development for teachers is, isn't, and should be.

In the summer of 2008, the principal of SRHS wanted university student-teachers at the school, in an effort to bring the university to us. We wanted to be better able to hire teaching recruits. Coincidently, the principal also stated that young student-teachers would bring with them ancillary benefits. He suggested, for example, that new recruits fresh from the university (Arizona State University specifically) would bring with them the new training in pedagogical theory that could be applied and incorporated into the school's practice - to the school's benefit. He stated that mentoring student-teachers would mutually benefit older, veteran teachers (K. Clark, personal communication, July 24, 2008).

In turn, via this action research study I developed a student-teaching model whereby a mentor-teacher might reciprocally benefit from the university's presence on campus in the form of his/her student- teacher. I designed my action research study to be an intervention in the relationship between a mentor- and student-teacher through a series of discussion protocols that centered their conversations on specific aspects of teaching. These protocols, an integral part of my intervention, were cognitive coaching protocols, where the student-teacher acted as the instructional coach asking questions of the mentor-teacher. I had a simple hypothesis: the mentor-teacher would learn something, be it content knowledge or pedagogical method, from the student teacher. I also believed that my intervention could accentuate and accelerate the veteran teacher's learning from the student-teacher.

Chapter 2 Review of the Literature

Reciprocal Learning

Reciprocal learning is a relatively new term for an age-old idea in teaching and learning, harkening back to Greek mythology (see Appendix A). Reciprocal learning is the concept that a person concurrently learns, or even relearns, while teaching another person a skill, trade, or idea. Including teaching, fields where this has gained scholarly attention include technology and language acquisition (Johns & Lixun, 1999; Strevens, 1988). Teaching, however, with its steady influx of student-teachers and apprenticeship models, is a more than suitable place to study the human phenomenon of reciprocal learning. Curricula in teacher education colleges and professional development practices have grown to include more and more reflective practices (Watson, 2008). As a result, so to have teacher educators' feelings that mentor-teachers might have something to learn from, as well as teach to, their student-teachers (LeCornu & Ewing, 2008).

Reciprocal learning within communities of practice. As participants on the periphery of any practice, new members may have insights and skills missing in more experienced members that can be of value (Carrington, 2004). This is a norm in educational communities of practices (Lave & Wenger, 1991) (see Appendix A). Literature is available to suggest that younger, inexperienced teachers can possess advantages in relationships with students, compared to older peers or mentors that they can observe and imitate (Lovely & Buffham, 2008). In turn, it is also the common for younger teachers to seek out experienced teachers to inquire about methods, approaches, and practices effectively employed in their

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classroom(s). Learning is reciprocated, as academic culture is concurrently transmitted and secured (Bourdieu & Passerson, 1994, Foucault & Pearson, 2001) between mentor and protégé. Thus academic culture, such as accepted norms and behaviors, are ever evolving, transferred, and redefined by members in a community of practice (Bourdieu & Passerson, 1994, Foucault & Pearson, 2001; Lave & Wenger, 1991).

Furthermore, researchers have noted shortcomings in institutional structures that fail to foster collaboration and advancement of a novice member to a master's status (Fuller & Unwin, 2003; Hicks, Glasgow & McNary, 2005; Glazer & Hannafin, 2006). These flaws are situated in historical, socioeconomic, and geographical roots. Often new teachers feel incapable of negotiating the complex hierarchies found in schools and experience a sense of withdrawal or desire to escape from the system (Hicks, Glasgow, & McNary, 2005). This is because new ideas and methods disturb or unsettle the status quo and existing power structure inside the operations of the school or educational institution (Foucault & Pearson, 2001; Fuller & Unwin, 2003). These norms, regardless participants' perceptions can be embedded, exported, and imported into a community of practice (Lave & Wenger, 1991). In many traditional models of apprenticeship, the apprentice is a tacit observer of a mentor's practice without direct instruction. In these models of apprenticeships, however, the novice is often seen as a hindrance, and rarely as a participant of equal relevance or importance (Lave &Wenger, 1991; Fuller & Unwin, 2003).

Charter Schools

Charter schools often recruit young and inexperienced teachers with competitive pay and benefits, compared to most traditional public schools (Kowal, Hassel, & Hassel, 2007). Yet, charter schools have extreme difficulty hiring the most skilled and experienced teachers (Carnoy, 2005; Hill, 2006; Wells, 2002). The reasons for this are plenty, stemming from public perception and misconceptions about charter schools (Carnoy, Jacobsen, Mishel & Rothstein, 2005; Kayes, 2006). Successful charters who can get past this stigma and manage to recruit, hire, train, and most importantly retain skilled teachers exist, but they are the minority (Carnoy, Jacobsen, Mishel & Rothstein, 2005; Hill, 2006). Indeed, many of the successes in the charter world have been known to do just that, redefine traditional practices of teacher compensation and retool professional development (Wilson, 2006; Hill, 2006; Kayes, 2006).

Chapter 3 Conceptual Framework

My intervention and dissertation are framed by constructivist learning theory. Constructivist learning theory was developed to better understand real-world participation in integrated activities or learning (Zane, 2009); yet a cursory review of the literature presents many interpretations of the theory. One such interpretation that is useful for this study is social constructivist theory. The theory is that learners construct their own knowledge and learning based on their social interactions and surroundings (Hein, 1991). Piaget and Inhelder (1973) suggest that intelligence and memory are linked, connected and enhanced by a learner's memory of an event or human interaction. The theory is centered on the idea that learners learn by observing social interactions and imitating others. Moreover learners construct knowledge based on observations and imitations that largely influenced by one's environment. Learners may construct new knowledge given past experiences elicited from presentation of the learning objective (Piaget & Inhelder, 1973; Garmston, & Wellman, 1994).

Some social constructivist learning theorists present teacher learning as a repetitive in social, group interactions (Schon 1987; Joyce & Showers, 1996). In this interpretation of social constructivist learning theory, learning and expertise come together in myriad, emergent contexts.

Cognitive Coaching

Cognitive coaching is one common practice of professional development for teachers associated with constructivist learning theory (Savery & Duffy, 1998; Jonassen, 1999), whereby participants construct their own learning by negotiating

social interactions around mutual tasks. Showers (1987) contends this form of

professional development allows participants to mutually construct or build a

practice they see as efficacious. Rather than a top-down hierarchy of social status,

often employed in teachers' professional development, cognitive coaching is

mostly a peer or near peer activity (see Appendix A). The coach is not a

supervisor or in a position of authority. In this practice, participants construct

knowledge through realistic, self-designed rubrics to assess their practice, without

fear of reprisal for being honest or candid in their observations (Zane, 2009). The

"coaching" of teachers is really the result of stimulated reflection elicited by the

instructional coach in series of prompts or questions. The questions are open-

ended and focus on objectives, learning outcomes, and methods (Showers, 1991).

People engaged in these investigations are often, "delighted to discover how much

further the memory can probe into the past, resuscitating a large number of

forgotten scenes" (Piaget & Inhelder, 1973, p. 381). Through cognitive coaching,

knowledge, learning, and expertise become local, contextual, and situated

phenomena. Lave and Wenger (1991) called this situated learning theory. Duke

(2009) suggests that any novice to any field can exhibit expertise if the situation is

structured around changing a paradigm or status quo. Thus in cognitive coaching

there develops a community of two.

Wenger's (1998) work further explains this via communities of practice. Wenger

posits that expertise is gained when a practitioner is recruited from a periphery

position and slowly, through trial and accomplishment, advances to a more

influential or central role within a practice. An integral part of Wenger's theory is

that teacher development lies in a given community of practice's ability to construct their own learning through embedded contexts, situations, and rituals. Additionally, this coaching doesn't always need to be explicit, articulate, or formalized. Rust (1999) suggests that teachers can modify their practice through the device of storytelling - as well as mutual, reciprocated, cognitive coaching.

Embedded Professional Development

Over the past two decades, professional development has become increasingly important to education reform efforts (Desimone, 2009; Higgins & Parsons, 2009). Recently a movement of research and scholarship has suggested that traditional models of teacher professional development have become stagnate (Haviland & Rodriguez-Kiino, 2009), and there is a need to modify *how* and *when* a teacher receives pedagogical training (Desimone, 2009; Higgins & Parsons, 2009). Often professional development does not take place at the school.

Literature on alternative strategies of professional development suggests teacher training can take place inside, and should be "embedded" inside the school building, inside the classroom, and even inside the real time delivery of lessons (Renfro & Grieshaber, 2009). Yet some teachers often abandon innovative tools and methods they learn during professional development seminars (Fullan, 2007). They do this for many reasons; however, often it can be attributed to a lack of resources the teacher has inside the classroom when a teacher needs it (Fullan, 2007), where the need for professional development is most opportune (Haviland & Rodriguez-Kiino, 2009; Renfro & Grieshaber, 2009).

In fact, professional development for teachers most often takes teachers away from the classrooms in which they teach and where their expertise and knowledge, or lack thereof, is situated. Erickson (1986) suggests that research that focuses solely on classroom instruction and lesson delivery is a relatively "recent phenomenon" (p.124). Glazer & Hannafin (2006) state that a collaborative apprenticeship model featuring reciprocal interactions yields potentially viable alternatives to traditional forms of teacher professional development, and that although well-intended, current teacher professional development practices are not adequate for long term growth in pedagogy. My intervention was informed by the idea that traditional professional development models lack context, and instead was aligned with Roger's (2002) and Renfro and Grieshaber's (2009) theories that new forms of professional development for educators should be simultaneously embedded in the day-to-day practice of schools and teaching.

NBCT Architecture of Accomplished Teaching

In order to prompt participant discussion and frame this study, many models of professional development could be replicated. I decided on two widely accepted models. Informing this intervention, first, were the standards pertaining to the National Board for Professional Teaching Standards (NBPTS). These are the standards on which the process of becoming a National Board Certified Teacher (NBCT) is based. Becoming an NBCT is a complex and rigorous process designed to distinguish a teacher *par excellence* (Pershey, 2001; Rotberg, Futrell, & Holmes, 2000). This process is aligned with five standards, otherwise known as the five key propositions of the NBPTS:

1. Teachers are committed to students and their learning.

2. Teachers know the subjects they teach and how to teach those subjects.

3. Teachers are responsible for managing and monitoring student learning.

4. Teachers think systematically about their practice and learn from experience.

5. Teachers are members of learning communities.

Conceptually these standards are best exemplified in the NBPTS's *Architecture of Accomplished Teaching* (see Appendix B). In this graphic, a double helix is framed around the five NBPTS propositions, as the propositions are built upon, follow, and grow around each other, and by doing so, mutually reinforce earlier growth. This is as true with DNA as it is with learning. This *Architecture* exemplifies what Erickson (1986) asserts by writing, "life is continually being lived anew, even in the most recurrent of customary events. This is assumed to be true of school classrooms as well" (p. 129). Most importantly, this graphic captures what my aspirations were for this new form of professional development at SHRS.

Chapter 4 Intervention

With ASU and SRHS approval in the spring 2010 semester, I proposed to place four ASU student-teachers with four mentor-teachers at SRHS in the fall 2010 semester to satisfy their last university requirement for becoming a state certified teacher. My intervention was to create and implement five cognitive coaching cycles between the mentor- and student-teachers, and to foster five different learning cycles of reciprocal teaching. Each cycle was tied to one of the aforementioned NBPTS propositions. The NBPTS propositions were to serve as an anchor to focus discussion, learning, and practice.

Mentor- and student-teachers were to be paired by subject. Student-teachers were to apply, mentor-teachers were to interview student-teachers, and then under my advisement, mentor-teachers would select the student-teachers with whom they would engage. Pairs were to be matched no later than the end of the 2010 summer break. Thereafter, the mentor-teachers were to attend a Saturday morning training session required and facilitated by ASU, during which they would be informed about the student-teaching mentoring process, grading rubrics, expectations, and integrating the student-teacher into their daily practices.

The proposal was drafted and approved on the idea that two of the four student-teachers were already unofficially placed. The math and English teachers both had student-teaching interns from previous practicum experiences who had committed to student-teach at SRHS. The other two student-teachers were yet to be found through the Office of Professional Field Experience in the Mary Lou Fulton Teachers College at Arizona State University.

What transpired was to be much different, however. True to the proposal, the English teacher and her student-teacher were recruited and paired in May. Later that month, however, the math teacher who had committed to this project was promoted to a vice principal position in another city. As a result, his student-teacher decided to student teach at a different school. In addition, I was unable to place any other ASU student-teachers at SRHS. Therefore, instead of intervening with four pairs of mentor- and student-teachers, the number of participants was reduced to two – one mentor-teacher and one student-teacher pair. This then became a case study (Merriam, 1998; Yin 2003).

First, the mentor- and student-teacher attended a pre-intervention meeting at SRHS before student-teaching began. This served as an introduction to the intervention and took place during the first week of the school year on August 6, 2010. I reviewed the specifics for the student-teaching program at SRHS, as outlined in the Staff Handbook (see Appendix C), the specific nature of the innovation, and the basic tenants of situated learning theory and theories of communities of practice and reciprocal learning. The intervention was to be a series of five learning cycles that I observed and audio recorded, each with three phases I designed for the pair:

The student-teacher acting as an instructional coach would:		
1. Hold a pre-observation protocol cognitive coaching session with the mentor-teacher	2. Observe the mentor-teacher using notes taken the pre-observation meeting	3. Discuss a post-observation protocol with the mentor-

The pair was also given guidelines for participation, including the timeline of the intervention, the NBTPS's *Architecture of Accomplished Teaching,* and the five discussion protocols they would follow during their cognitive coaching cycles. I explained my role as both the Curriculum Coach and participant in the research. The mentor- and student-teacher were given binders that contained a blogger password and username, as well as a paper journal for them to respond to open ended reflection prompts that were included at the end of each of the protocols. But at this meeting, both the mentor- and student-teacher described annoyances and hesitations about blogging their journal entries, so I modified the intervention to allow for pen and paper journaling in the binders only.

During the second week of the intervention, the student-teacher began her observations of the mentor-teacher in the classroom, in accordance with standard university protocols and procedures. This was to allow the student-teacher an opportunity to get acclimated to the school's culture. During this week, I gave the participants a digital survey pertaining to the initial perceptions of reciprocal learning and the intervention (see Appendix D & E). It was at this time, that the mentor-teacher asked that I extend the time before enacting the learning cycles, to further allow her student-teacher and herself time to acclimate to the new setting. SRHS adopted a new schedule for the 2010-2011 year, requiring teachers to teach one more class a day, extending the total teaching another hour a day.

Consequently, teachers lost an hour of prep time every day. The mentor-teacher reported that she and her student-teacher were both too busy to give this project the time it needed and it would yield better results if time were allowed to

ease into the project (M. Hill, personal communication, August 24, 2010). Not wanting to lose the only two remaining participants I had left, I changed my intervention's time table to better fit their schedules. I decided to wait approximately one month before commencing the learning cycles.

In September, six weeks into the semester, we began cycle one. Cycle one was conceptually framed by the first NBPTS proposition: "Teachers are committed to students and their learning." This cycle (see Appendix F) included a pre-observation meeting, during which the student-teacher asked the mentor-teacher questions regarding her students and their learning; an observation, during which the student-teacher observed the mentor-teacher teaching a class and took notes using the protocol; and a post-observation meeting, during which the mentor- and student-teacher discussed the lesson, and centered primarily on the students and their learning. This protocol also included, for the both mentor- and student-teacher, journal prompts to which they were to respond in a reflective journal. Cycle one was completed during the last week of September. These meetings also involved cognitive coaching sessions designed around a discussion protocol. Field notes were taken during this and all learning cycles, where I analyzed the situated context from my perception.

Because the study had shifted to a single subject, case study, I began to think the protocols I had designed were too rigid and impersonal to follow as planned. The participants and I agreed to meet every two weeks and to abandon the formality of the discussion protocols as written. We decided to use each protocol as a guide for discussion for each meeting instead. Furthermore, during

informal and formalized conversations, both the mentor- and student-teacher also requested that I speak more. I obliged, mainly because I am the Curriculum Coach at SRHS and because I viewed myself as what Wenger (1998) refers to as a boundary broker via this intervention. I also encouraged the mentor- and student-teacher to journal more openly and candidly about their experiences. They did this as I continued to make observational notes about their classroom behaviors. This was the pattern we settled into until the end of the intervention in December when the student-teacher completed her student teaching assignment.

Specifically, we met as a group formally ten times, during which I recorded the five post-observation learning cycle discussions (see Appendices F, G, H, I, & J, respectively). Meanwhile, I had daily, informal conversations with both mentor- and student-teacher privately and/or together, giving them the same journal topics about which they were to write reflectively (see Appendices F, G, H, I, & J, respectively).

Periodically, I would gather the mentor-teacher's assessments of the student-teacher that she submitted to ASU. Shortly afterwards, I would meet and interview the mentor-teacher and have her assess herself as a mentor using a protocol I designed (see Appendix K). I audio recorded and transcribed these meetings.

During the last half of the intervention, I also had participants focus solely on the journal topic of "what did I learn from the student-teacher today?" for the mentor-teacher and "what did the mentor-teacher learn from me today" for the student-teacher. I asked this out loud almost every day in passing, as a last push

for data collection. At the end of the intervention, participants were given an opened ended summative survey (see Appendices M & N) regarding their perceptions about their reciprocal learning and my intervention. Their participant journals were also collected.

My researcher's journal, along with their journal entries, qualitative data were collected via surveys the mentor-teacher's self assessments and the recordings of the learning cycle discussions therefore constituted my corpus of data. I used these instruments to answer my research question: What did the mentor-teacher learn from the student-teacher via my intervention? My initial theoretical proposition and hypothesis was that a mentor-teacher would learn something, be it a piece of content knowledge or pedagogical method, from a student-teacher.

Chapter 5 Methods

To answer my research question, I gathered data throughout the intervention beginning in August 2010 and ending in December 2010. Initially, I planned to use a mixed methods approach (Miles & Huberman, 1994), but once it became evident that this was to be a single subject case study, I began employing only qualitative methods and using instruments that would yield more dynamic and contextualized findings from the data (Erikson, 1986; Merriam, 1998; Johnson & Onwuegbuzie, 2004). Additionally, I employed qualitative methods because traditional, quantitative approaches to educational research, as applied in the natural sciences, were not going to yield rich enough data to help me encapsulate the social interactions among the participants involved (Glaser & Strauss, 1967; Erickson, 1986; Kvale, 1996), let alone in a single-subject case study (Merriam, 1998; Yin, 2003). That said, I designed my data collection measures to answer my research question with qualitative data. Qualitative accounts and voices were important to help me understand the human side of things, as is often necessary in social science and educational research (Glaser & Strauss, 1967; Miles & Huberman, 1994; Berliner, 2002; Johnson & Onwuegbuzie 2004;).

Once this became a case study, I modified my instruments to meet the preferences and time schedules of my participants and to be less rigid in structure, which is common in case study procedures (Miles & Huberman, 1994; Merriam, 1998; Yin 2003). Similarly, I felt it was important to establish, or attempt to

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establish a trusting relationship among the participants and myself (Stake, 1995; Yin, 2003). To this end, participants were given a letter that promised that their identities would be kept confidential, stated that the nature of the project was to help veteran teachers in the field, allowed them the option to quit at any time, and asked permission to audio record specific conversations we had concerning the intervention.

Moreover, I began using the term "team" to refer to the mentor-teacher, student-teacher, and me as group. In the day-in and day-out of working so closely with the participants, I noticed that I needed a term in situ that referred to this study. I commonly referred to the intervention as "my study," "the ASU project," or simply "our project." Research on case study literature suggests that could have been expected because my participants were an "opportunistic sampling " (Miles & Huberman, 1994; Patton, 1990) in that I was taking advantage of the last opportunity I had to involve the participants at all.

I had already lost three pairs of mentor- and student-teachers, and this remaining pair was all I had left. I thought the language of "team" would add an air of cohesion and keep the participants' good-faith involvement. I also wanted to add to the intensity of this single case study (Miles & Huberman, 1994). From my research in organizational leadership (Senge, 1990; Fullan, 2007b), action research (Stringer, 1999), and embedded case study methods (Merriam, 1998, Scholz, & Tietje, 2002), I perceived that my conversational colloquial language and involvement would make them more motivated to be true to the intervention's

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intents, and hopefully, more thoughtful and truthful about what they would report to me in effect.

Measures

      Initial survey. As mentioned above, before my intervention, I administered a survey to the mentor- and student-teacher in August (see again, Appendix D & E respectively). These instruments contained Likert-scale and open-ended items and was organized by construct. I used the first survey to collect quantitative and qualitative initial perceptions about the mentor- and student-teachers' attitudes towards the mentoring process, reciprocal mentoring, reflective journaling, cognitive coaching, and embedded professional development.

      Cognitive coaching discussion transcripts. For each learning cycle, the mentor- and student-teacher held a series of cognitive coaching interviews, under my supervision, using the five cognitive coaching protocols I developed (see again, Appendix F, G, H, I, & J, respectively). These cognitive coaching interview protocols included series of open-ended questions to foster discussion about accomplished pedagogy as aligned with the *Architecture of Accomplished Teaching*. In these meetings, the student teacher acted as the instructional coach, using the questions to interview the mentor-teacher. Initially, for the first two learning cycles, I was present but only took notes and audio recorded the interactions between the mentor- and student-teacher. Yet as mentioned before, both the mentor and student-teacher asked that I participate more, and as such I changed my role to active participant for cycles three through five. I did this

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because I thought my cooperation would help elicit better responses from the participants to answer my research question and put them at ease.

Mentor-teacher's formal assessments of the student-teacher and self. Throughout the intervention, the mentor-teacher had to formally assess her student-teacher, as per ASU policy. I received a copy of the grade report and evaluation as part of my role as Curriculum Coach, after the mentor-teacher submitted these assessments to ASU. As she did this, I met individually with the mentor-teacher to discuss her attitudes and assessments regarding the student-teacher. As mentioned above, I also had the mentor-teacher evaluate herself, using an assessment I designed (see again, Appendix K). This assessment was designed to be completed online and contained Likert-scale items and open-ended questions; however, I modified it to make it solely a reflective, open-ended conversation between her and me, which I recorded. I used these self-assessments to gather the mentor-teacher's personal feelings she had about her own learning and my intervention. They were designed to see if the mentor-teacher's personal feelings and attitudes contributed to, or seemingly hindered her learning from the student-teacher.

Participants' journals. I collected data via the mentor-teacher's, student-teacher's, and my researcher's journals. The purpose of the journals was to further elicit intimate perceptions about the intervention that the participants might not have wanted to share publicly, specifically regarding whether the intervention facilitated the mentor-teacher's learning from the student-teacher. Research suggests participants may be more comfortable expressing themselves through

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writing (Bain, Ballantyne, Packer, & Mills, 1999), so I integrated these journals, following the five learning cycles of the intervention thematically. However, over time these too were simplified to help me answer my main research question: What did the mentor-teacher learn from the student-teacher via my intervention?

Final survey. In December, at the end of the intervention, I surveyed the mentor and student-teacher again to collect their final impressions of what the mentor-teacher learned from the student-teacher. I modified and designed the final survey to better fit the case study my project had become. All questions were open response (see Appendix L & M).

Data Analysis

At the end of the data collection phase, I used a grounded theory approach to systematically analyze my data to better understand what the mentor-teacher learned from the student-teacher (Strauss, & Corbin, 1998). All of the qualitative data from the learning cycle discussions, participant journals, surveys, and the mentor-teachers' self-assessments were transcribed and analyzed. In total, there was approximately six hours of audio recordings from the learning cycle discussions and mentor-teachers' self assessments that were transcribed and then transferred to Microsoft Excel in paragraph form.

Coding. Open coding of the data began in late December 2010 and early January 2011. Two doctoral students and I met and reviewed the basics of open coding (Strauss, & Corbin, 1998). Once the norms for the delineation of categories were established, the two doctoral students and I open-coded the data from the participants' journals, learning cycle discussions, the mentor-teachers'

self assessments, and surveys. I took the open-coded data, produced overarching themes, and ranked them by their counted frequencies. There were common themes found in the open coding, including relationships, professional knowledge sharing, lesson planning, reflections on naiveté, and accountability.

I used axial coding (Strauss & Corbin, 1998) to further identify relationships across these overarching themes. I continued this process for all the relevant themes identified in the participants' journals, survey responses, learning cycle discussions and the mentor-teacher's self assessments. Below I use the data as evidence and report the five assertions that I reached employing both inductive and deductive reasoning, given the seven themes I initially created, to help answer my research question about what the mentor-teacher learned from the student-teacher via my intervention.

Creditability and Trustworthiness

To improve the trustworthiness of my assertions (Lincoln, & Guba, 1985), I took several steps. First, I looked for disconfirming evidence to each theme as I analyzed the data. Second, I used a member checking strategy (Miles & Huberman, 1994) and had both the mentor- and student-teacher check my assertions to increase my trustworthiness and creditability (Lincoln, & Guba, 1985),. They were apprised of the five assertions I make below with the evidence I used to justify them, and I provided them with a follow-up chance to provide feedback. Third, I used the analytical process of triangulation, where identified themes were found in at least three sources of data (Miles & Huberman, 1994; Merriam, 1998; Yin 2003). All assertions, again based on findings common in at

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least three data sources, are presented next. Evidence per data source are

presented with each assertion.

Chapter 6 Findings

Through the process of open and axial coding, I noticed overarching

themes through which I came to understand my data. Using my understanding of

the themes in the data I present five findings below that answer my singular

research question regarding what the mentor-teacher learned from her student-

teacher. They are presented in the order of what I found to be the most important

to my needs as the Curriculum Coach at SRHS.

Relationships Matter

As background, I found that the mentor-teacher believed that if she was to

learn anything from her student teacher, she felt she needed to have a positive

relationship with her. The mentor-teacher reported having student-teaching

interns in the past who, "just took up space." As a result of this, she perceived that

a mentoring experience that was not positive would teach her little to nothing

about her own practice. I found evidence of these beliefs, her beliefs about

whether she felt she was even capable of learning from her student teacher, in the

learning cycle discussions, journals, and surveys.

Within the learning cycle discussion transcripts the mentor-teacher

commented, "I think that we [she and her student-teacher] click." She continued,

"We just jive in how we talk about things and how she picks things up. I see her

do it [teaching and planning lessons] and respond. We have great conversation. It

flows." The mentor-teacher then stated that without having a rapport with her

student-teacher, she would not have learned anything from her. She said, "I think

that's what makes it. See maybe this whole thing, when we are doing this research

[depends on our relationship]."

Within the data collected from the mentor-teacher's journals, there was also evidence that the mentor-teacher perceived that the positive relationship she developed with her student-teacher facilitated her own learning. In one journal entry, she wrote, "having developed a relationship with [the student-teacher] for a year's time now, [as] she was also my intern, has helped me to acquire this [willingness to learn from her]." In the same journal entry, the mentor-teacher explained why any relationship where she saw the student-teacher as a colleague, and not a burden, was important with respect to her own willingness to learn from the student-teacher. She wrote, "I was a mentor to someone before who was more of a distraction than a help. So, I can understand where some teachers are hesitant to let someone new in." In contrast, she stated, "This [time] has made a huge difference."

Data within the mentor-teacher's survey responses also suggested that having a mentoring relationship with the student-teacher was important to the mentor-teacher's capacity to learn from her student-teacher. The mentor-teacher reported in the first survey, "she and I work so well together. It's like we read each other." She added,

> "The process would be interesting with a student teacher who is not
> naturally reflective. I was lucky to have a student teacher who[m] I had
> established a good rapport with, but I know that this does not always
> happen. So what would the experience be like with a student teacher who
> isn't [my student-teacher]? She was a really good candidate, but I wonder

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if I would have been as happy with the results of the project with anyone

else."

In the same survey, the mentor-teacher expressed that a relationship of trust and

respect was important to her reciprocal learning because she could not have

shared ideas honestly with the student-teacher without it.

In sum, the mentor-teacher came to believe that her learning from her student-

teacher would not have happened if she did not have a positive relationship with

her. In addition, the mentor-teacher expressed needing to feel the student-teacher

added value to her practice, and not just her workload. As demonstrated, the

concepts of learning from her student-teacher and having a relationship with her

were, for the mentor-teacher, interwoven in that both depended highly on the

other. The mentor- and student-teacher had a positive relationship, and as a result,

the mentor-teacher believed and reported she felt capable of learning from her

student-teacher.

Professional Knowledge Sharing

In terms of what she actually learned, I found first, that the mentor-teacher

learned a new method of teaching rhyme scheme from her student-teacher. This

makes sense when one considers the mentor-teacher reported privately and

publicly that she respected the student-teacher's background knowledge in

English. Although the mentor-teacher said she learned many things from her

student-teacher throughout this intervention, analyses of the data suggested there

was only one specific method she identified actually using. I found data to support

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this claim within the final survey, the learning cycle discussions, and mentor-teacher's journals.

Within the mentor-teacher's final survey, the mentor-teacher recalled learning a method of teaching rhyme scheme from her student-teacher. She wrote, "[the student-teacher] was better at teaching rhyme scheme [than I]." Rhyme scheme is often associated with syllabic meter in poetry instruction and curricula; it is the way in which a poet layers a syllabic pattern, within a poem, for a desired effect on the audience. There was one particular lesson during which the student-teacher employed a quasi-rapping and dancing method with the students. The mentor-teacher reported that her students enjoyed this and that she was planning to use it again. Later in the survey, she came back to this specific point stating, "She knew a little bit more about teaching rhyme scheme and meter in poetry. I took advantage of [the student teacher's] knowledge and had her teach the students a couple of lessons in this area."

Within the data from the learning cycle discussions, I also found evidence of this. For example, the student-teacher redirected a learning unit on *Animal Farm* by connecting a poetry segment to the mentor-teacher's previously designed *Animal Farm* unit. The adoption of the student-teacher's method was confirmed during a transcribed interaction between the two participants. The mentor-teacher said, "I've never seen a poetry lesson come out of *Animal Farm*." The student-teacher replied, "Oh…you could analyze the song." The student-teacher went on to suggest how the mentor-teacher's current unit and lesson plan could be modified. The mentor-teacher then changed her unit plan and followed the

student-teacher's advice, weaving the poetry lesson into her pre-established *Animal Farm* unit.

I also found data in support of this within the mentor-teacher's journal. The mentor-teacher wrote, for instance, "Since I know that [the student-teacher] has a solid background in Shakespeare and in poetry, I often ask[ed] for her opinion during class discussion, too. Or she help[ed] in the planning of curriculum." The mentor-teacher also wrote, "[Her rhyme scheme] lesson was interesting to me.... At first when [the student-teacher] did it, I stopped to listen. Then I asked her to do it again for another class." She finished this entry with, "I felt like she was teaching me it too. I have [the rhyme scheme lesson plan and handouts] saved on my computer so I will use them in class again."

In sum, the mentor-teacher learned a new way of teaching rhyme scheme to her high school students from her student-teacher. She allowed the student-teacher an opportunity to teach the rhyme scheme lesson to both her AP English and remedial freshmen classes, interrupting unit plans that the mentor-teacher had developed over the years of teaching the same curricula. While I found only one instance of knowledge sharing across data sources, though, it is possible the mentor-teacher learned more as she stated that she respected the knowledge the student-teacher brought with her to the team experience. However, only in this instance was the actual knowledge shared evident within the data collected and analyzed.

Lesson Planning

I also found that the mentor-teacher felt she became increasingly likely to critically examine her own practice of lesson planning given her mentoring of her student-teacher. The mentor-teacher reported she learned more about her own lesson planning because she was given an opportunity to compare her lesson plans to the student-teacher's. And the mentor-teacher perceived this occurred as a result of their discussing, breaking down, and drafting lesson plans together, as mentor- and student-teacher. This finding was demonstrated in the journals, mentor-teacher's self assessments, and surveys.

The mentor-teacher reported in her journal that she learned more about her understanding of lesson planning because her student-teacher gave her an opportunity to compare her own planning practices to those of the student-teacher. For example, the mentor-teacher wrote, "I really don't have the opportunity to measure myself [against] other teachers, because I don't observe them while they teach." In contrast, through coaching the student-teacher in the planning process, and then observing the plan in action, served the mentor-teacher on a daily basis. This collaboration, and multiple opportunities to observe her student teacher deliver the lessons planned, provided a lens through which the mentor-teacher could think about her own lesson planning and delivery.

Furthermore, coaching the student-teacher on the basics of lesson planning reminded the mentor-teacher of her own tacit understandings about crafting lessons. For example, the mentor-teacher suggested that the student teacher include in her lesson plan a particular approach to pacing and scaffolding. The

student-teacher then executed the plan in class to their mutual satisfaction. Afterwards, the mentor-teacher wrote in her journal about the execution of this particular lesson plan writing, "I [didn't] expect [the student-teacher] to adopt my particular style, but I am [now] at least more aware of what my style is--that I even have one."

Within the data from the mentor-teacher's self-assessments, I also found evidence that the mentor teacher thought more about her own lesson planning as a result of mentoring her student teacher. In one instance the mentor-teacher said, "I definitely recommend[ed] lesson plans to [the student-teacher]." The mentor-teacher explained that doing so made her articulate her own planning in a manner to which she was not accustomed. In addition, the process of deconstructing her decision-making process when planning lessons was difficult for her. When asked why, she said, "Well see, it is not stuff outside of myself. It's hard to do [explain my lesson plans], because I'm so 'just do it'...with things. I kind of already know."

Further, the mentor-teacher said this was challenging because it made her think about her implicit thought process and knowledge. For instance, she said, "I'm so SIOP [Sheltered Immersion Operations Protocol, a form of language arts instruction] trained that I already have the vocab [sic] I think. I've changed in my brain to think, okay what's the vocabulary? What are the objectives? What are the activities to scaffold?" The mentor-teacher went on to say, "So to talk to [the student-teacher] about what I need, is a challenge, because sometimes I don't need to even think about what I'm doing, I just do it. I know that sounds bad." I perceived her to have said this, because she did not want to admit to me, her

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curriculum coach to whom she submits her weekly lesson plans that she did not usually explicitly think about planning her lessons, whereas explaining these to the student-teacher required her to do so. This too serves as evidence that by merely mentoring her student-teacher she had to more often put herself and her own practices in check.

Within the data from the mentor-teacher's surveys there was also evidence the mentor-teacher thought more about her lesson planning via this process. The mentor-teacher wrote that lesson planning was important to think about and discuss with her student-teacher. In one instance she wrote, "New teachers never plan out enough time with their first activity." The mentor-teacher said that via the student-teacher's lesson plan, she "would allot fifteen minutes for something that I knew would take at least forty minutes." In addition she said, "planning took a good amount of time because I had to make sure that I was communicating exactly what I meant, that it couldn't be misconstrued." While communicating what "exactly she meant," she had to continuously question what it was "exactly that she meant." This in itself helped the mentor-teacher think about her own lesson planning.

In short, data demonstrated the mentor-teacher took steps to coach her student-teacher on ways to more effectively plan a lesson and self-reported that she learned a lot more about herself, throughout the process. For her, as a mentor-teacher, the hardest aspects to explain were all the thoughts and behaviors she took for granted she knew, or believed she knew as veteran teacher, after years of planning and delivering lessons.

Naivety and Growth

Next, I found that the mentor-teacher learned about her own growth as a teacher from her student-teacher because she perceived the student-teacher was naïve and that in comparison, she no longer was. This makes sense because the mentor-teacher stated, publicly and privately, that the student-teacher reminded her of herself when she first started teaching. The mentor-teacher reported she learned about her own growth as a teacher, because she no longer identified with what she perceived to be the student-teacher's naivety. In particular, data from the journals, learning cycle transcripts, and surveys provided evidence for this claim.

In her journal, the mentor-teacher reported that seeing how inexperienced her student-teacher was served as a positive self-affirmation regarding her own practice. She wrote, "This may sound completely egotistical of me, but I was thinking just the other day that my student-teacher makes me feel like a pretty awesome teacher in that I see how much I know in comparison." The student-teacher also reminded the mentor-teacher of the teacher she used to be. She wrote, "Since I have been mentoring [the student-teacher], I have been reflecting back on my student teaching experience and my first year as an English teacher." The mentor-teacher was reminded of herself, particularly when she perceived that although the student-teacher was qualified to teach English, she had much more to learn about teaching.

In another journal entry the mentor-teacher claimed that the student-teacher's naivety also made her realize how much she had grown as a teacher. She wrote, "Today, I really saw the idealism in [the student-teacher], which made my

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own point of view seem cynical. I would not like to see myself as a cynic, but as a realist." As the mentor teacher thought about her own practice in light of the student-teacher's naivety and idealism, she then came to learn that her own sense of realism had been borne out of years working in a high needs school. She said, "I do remember being so hopeful and viewing teaching as missionary work; we were saving lives and changing the world." She also said her early idealism was disappointing and emotionally difficult for her, as she developed relationships with students during her career. She wrote, "I didn't always have this perspective. As a new teacher, I would invest so much emotionally into my students. It was draining. It was emotional. I now am smarter about when to invest myself." The mentor-teacher saw the student-teacher as a younger version of herself, before she had experienced the realities of professional teaching.

The learning cycle discussions also provided evidence that the mentor-teacher thought about the student-teacher's lack of experience compared to her own. Although she never used the word "naive" in front of the student-teacher during the learning cycle discussions, the mentor-teacher did say repeatedly that she saw herself in the student-teacher and that she frequently thought about this.

For example, the pair had spent time discussing methods of classroom management, which reminded the mentor-teacher of herself and her struggles. They spoke about this during the learning cycle discussion during which the mentor-teacher said, "When [the student-teacher] is teaching it brings me back to, that's right, that [classroom management] is hard. I was like that too, I remember how I did it and then I think how long did it take me?" The mentor-teacher

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finished this thought with the rhetorical question, "What made me finally get over that [being ignored by students]?" The implied answer in the discussion was simple, the collected experience she had as a teacher. This might explain why in the same discussion, the mentor-teacher told me, "I was just like her," and she then said to the student-teacher "you remind me of me."

Within the survey data there was also evidence to support the claim that the mentor-teacher thought about the student-teacher's naivety, and as such learned more about herself and her own professional growth. Here again, the mentor-teacher said, "[observing the student-teacher] gave me an opportunity to reflect." She said, "I learned what I had forgotten about myself as a new teacher. She reminded me about all the mistakes that I had made my first year." The mentor-teacher continued this line of thought and said, "I also came to see [mentoring the student-teacher] as pseudo-therapy sessions, because it gave me the opportunity to say aloud what my challenges were and how I [tried] to navigate my way through."

To conclude, seeing herself in the student-teacher led the mentor-teacher to look back at her own growth, or change as a teacher. This was because she no longer identified with what she perceived was the student teacher's naive and inexperienced view about teaching, and education in general. The mentor-teacher learned she had become more realistic about teaching, and although she thought the student-teacher naive, the mentor-teacher stated she believed the student-teacher would also become more realistic and a good English teacher given more years of experience. This was related to the last finding."

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Accountability

Last, I found that the mentor-teacher experienced a heightened sense of being held accountable because of mentoring the student-teacher. The mentor-teacher felt that what she said and did in front of the student-teacher needed to be accurate, more accurate than if she was just teaching her students with nobody else present in the classroom. The mentor-teacher did not want to discredit her own teaching, by either not doing, or not doing well, what she had instructed the student-teacher to do. In particular, I found evidence for this claim in the data from the surveys, learning cycle discussions, and journals.

In the survey data I found that the mentor-teacher experienced an increased sense of being held accountable because of mentoring the student-teacher. She reported that she had to pay more attention to her own behaviors and practices because she was consistently being observed by her student-teacher. For example, when asked how she learned from the student-teacher during the intervention the mentor-teacher said, "It just reinforce[d] the importance of the teacher walking the talk." The mentor-teacher wanted to be true to what she told her student-teacher to do, as her mentor. She said, "After I would say something [to the student-teacher] about my practice, I had to stay true to showing it in the classroom, or vice versa." The mentor-teacher had to hold herself accountable to the same standard she instructed the student-teacher to uphold, because she did not want to contradict herself. She said, "I couldn't say anything that [the student-teacher] did not witness or wouldn't observe."

The learning cycle discussions also yielded evidence that the mentor-teacher felt more accountable for her actions because of the presence of the student-teacher. For example, when asked what it was like to teach with the student-teacher in the room, the mentor-teacher said, "[the student-teacher] in the class does keep me on my toes, definitely." The student-teacher's presence also made the mentor-teacher feel more pressure than usual about whether the information she was teaching was accurate. She said, "I want to make sure that I'm giving up to date information and that what I'm teaching is relevant to what [the students] need."

The mentor-teacher's journal yielded additional information. The increased sense of accountability came in the form of the mentor-teacher privately rethinking about the accuracy of her own content knowledge and instruction. She wrote in her journal, "I have noticed within the last couple of days that I have caught myself being doubtful about the validity of some of my answers [about content knowledge]." When she had mistakenly given a wrong answer to a student, the mentor-teacher said she felt compelled to correct it in a more direct way because of the student-teacher. She said, "I made sure that I found the correct answer within moments of catching myself. I wonder if I would have been as honest if [the student-teacher] were [sic] not in the room." The mentor-teacher suggested another way she would have handled this situation if the student-teacher had not been present. She wrote, "what may have happened is that I would [have] remember[ed] later that I needed to double-check something, and then I [could have brought] it up to the students in a more contrived manner."

In the end, the mentor-teacher learned that she had to hold herself more accountable because of not only the presence of the student-teacher in the room, but also because she was the student-teacher's mentor. So while the student-teacher provided another pair of adult eyes in the room, she also held the mentor-teacher-accountable simply by being there. The mentor-teacher did not want to be perceived by the student-teacher as being out of date with regard to her practice. In addition, the mentor-teacher thought about her own content knowledge much more while teaching in front of the student-teacher in order to prove she was up to the task of being both teacher and mentor.

Chapter 7   Summary and Conclusion

Via my research study, I looked not at what a student-teacher learned from a mentor-teacher but the reverse. Here, I investigated what a mentor-teacher learned from her student-teacher, by implementing a series of cognitive coaching cycles and having the participants journal about their experiences, attitudes, and perceptions during the mentorship. I knew there was literature to support my hypothesis that a mentor-teacher could learn something from the student-teacher (Taylor, 2000; Carrington, 2004). What I did not know was what the mentor-teacher might learn, and how my intervention, constructed to focus the mentor- and student-teacher's discussions of practice would facilitate this learning. After this action research project, I can report the mentor-teacher claimed she learned the five findings mentioned above. What remains to be discussed is how my intervention helped this process.

First, what I learned about my intervention was that time was an important factor for all of the participants, including myself. Not only did my intervention take time on the part of my participants and myself, but it also protected time for more guided discussions of practice. My intervention protected much more time than typically allotted for such activities, at least in my school. For example, when I asked the mentor-teacher how her learning from the student-teacher would have been different without my intervention the mentor-teacher said, "I would have felt that there wasn't enough time for us to sit down and discuss things at a deeper level." Had I not been the one encouraging that they engage in these deliberate activities, the mentor-teacher might not have taken the time to learn as much. The

mentor-teacher said, "I always tell my students that they have to use all of their senses while learning for it to stick, or be absorbed. So, [engaging in this study] was just another way for me to process the experience."

Second, my intervention also helped to focus the mentor- and student-teacher's discussions about practice. When asked about the learning cycle discussion protocols, the mentor-teacher said these helped them, "share things about the practice and swap ideas, [because] the questions that we had to discuss were more intimate, focused." The student-teacher said that she believed these learning cycle discussion protocols affected the mentor-teacher's learning process as well by requiring her to think about her own teaching, not just the student-teacher's. Without the learning cycle discussion protocols the student-teacher said, "We would have been less aware of the impact my presence had on her teaching. We would simply have focused on assessing my performance, rather than my effect on her."

Third, I learned that the mentor-teacher thought that the same learning cycle discussion protocols were too inordinately focused on the mentor-teacher, and that at times she was disappointed that often she was the only focus of dialogue. The mentor-teacher said, "I actually looked forward to asking [the student-teacher] questions and her having to explain her ideas aloud. I was a little disappointed that the focus was more on me [rather] than it being shared equally between the both of us." The student-teacher expressed a similar sentiment. She said, "[the mentor-teacher] expressed frustration that the [protocols] focused so much on her performance and less on my growth. She felt like some of the

questions were [too] personal…[The mentor-teacher] said the interviewing felt more like a psychological evaluation."

Fourth, and related, I have come to believe my intervention, and particularly the learning cycle discussion protocols, worked better with my participation. During the first two learning cycle discussions, I observed and took notes. The participants stated it was awkward to have a private conversation with a silent person just taking notes, and that instead I should join in the discussion. I agreed and actively participated in the last three protocol-based discussions. The mentor-teacher said this aspect of the intervention was the most beneficial to her. She said, "The most beneficial part was getting a third-party perspective." This makes sense as after all I am the instructional coach, and I was the one who designed the questions I wanted the mentor-teacher to consider. I noticed what I perceived to be a attitudinal and affective improvement in the mentor-teacher's participation once I began actively participating. She said, "If I didn't get to meet with another seasoned teacher to reflect, share ideas, and concerns then I would have just saw things the way that I wanted to see them." She continued, "I felt that I got to see a bigger picture [with me as an active participant], and that gave me more confidence with being a mentor who was still learning too."

In the end, my intervention protected time for the mentor- and student-teacher to discuss practice, but only after it required the participants to commit their own time first. Once the time was committed, the learning cycle discussion protocols were successful at focusing the participant's discussion about teaching as outlined in the NBPTS's *Architecture of Accomplished Teaching*. Indeed at

times the mentor-teacher claimed the learning cycle discussion protocols were a little too focused on her, which she thought was awkward and "a little disappointing." Related to this, I found that the learning cycle discussion protocols that I designed worked better when I was a participant in the discussion. In the future I would modify my intervention to involve both mentor- and student-teacher in a more balanced way. This may ameliorate feelings that the intervention was too personal, and may facilitate reciprocal learning more. With that in mind, I am hopeful that my intervention may be developed into a sustainable practice at SRHS, where mentor- and student-teachers are required to engage each other using the learning cycle discussion protocols over a semester-long mentorship.

On that note, the findings and conclusions reported in this study will be used by the SRHS administrative team, of which I am a member, to see if this professional development process can be leveraged to sustain this, and possibly involve more teachers. While SRHS will continue to work with ASU student-teachers for many reasons, including for reasons of teacher recruitment, I will continue to examine and support reciprocal learning when mentor- and student-teachers work together. That said, I have to reasons to believe this program will continue and work better with some modifications. For one, there is substantial work to suggest that professional norms need to evolve with time, as mentors and protégés interact with each other in communities of practice (Bordieu, Passeron, & deSaint Martin, 1994, Foucault & Pearson, 2001). It is also reasonable to assert from the findings of this study that focusing the discussion and thinking of both

mentor- and student-teacher in context can continue to help enhance professional

learning and development. To further enhance the professional knowledge sharing

I will adjust my protocols to focus more on content knowledge and pedagogical

methods.

Modifications would have to be made involving the student teachers, as

well. As evidenced by this action research cycle, attrition for student-teachers at

SRHS is high and very unreliable to build this into a sustainable practice. To help

with this I could modify the protocols to involve student-teaching interns, as well

as student-teachers. Student-teacher interns do not experience the same attrition at

SRHS, are easier for me to place, and could be used more consistently. Just

because they are not as trained or as close to their teaching credentials, as the

student-teachers, does not mean my hypothesis could not work with them as well.

It is not that the results of this intervention and action research study were

disappointing to me. It was more that I completed the study I was able to, not

necessarily the one I wanted to. My desire was to have more than one pair of

participants to yield quantifiable data too to answer my research question.

However, my study still yielded findings I believe are of value to SRHS.

In this small case study alone, the mentor-teacher reported that she developed a

relationship with the student-teacher and learned from her, specifically learning a

new method of teaching poetic rhyme scheme, that she felt she learned from

articulating her lesson plans in ways she had not before, that she had feelings of

increased self confidence, and that she felt more accountable because of the

student-teacher. These findings alone, in my opinion, are adequate to move

forward with this form of professional learning in my school..

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APPENDIX A

GLOSSARY

Near peer: A near-peer is a person or participant in a community of practice designated for being neither extremely above nor below another person in terms of contextual, social hierarchies.

Non certifiable Teacher: Some charter school teachers do have the perquisite post-secondary course work to become certified in the State of Arizona. Namely these course are education courses that the state requires for teacher certification. Often these teachers have come from industry and do not wish to pursue certified status, and or they not qualified to apply for certification.

Professional development: Professional development is meant to be understood as ongoing training required of professional teachers, to remediate, improve or strengthen a practice practice. Professional development for teachers is often required by school, district, state and or federal educational policy for continued employment.

Professional learning community: Used in this study the concept of a professional learning community is meant to be understood as a place of employment or practice, such as a school of my purposes, that promotes mutual cooperation between participants, emotional support, personal growth, and a synergy of efforts.
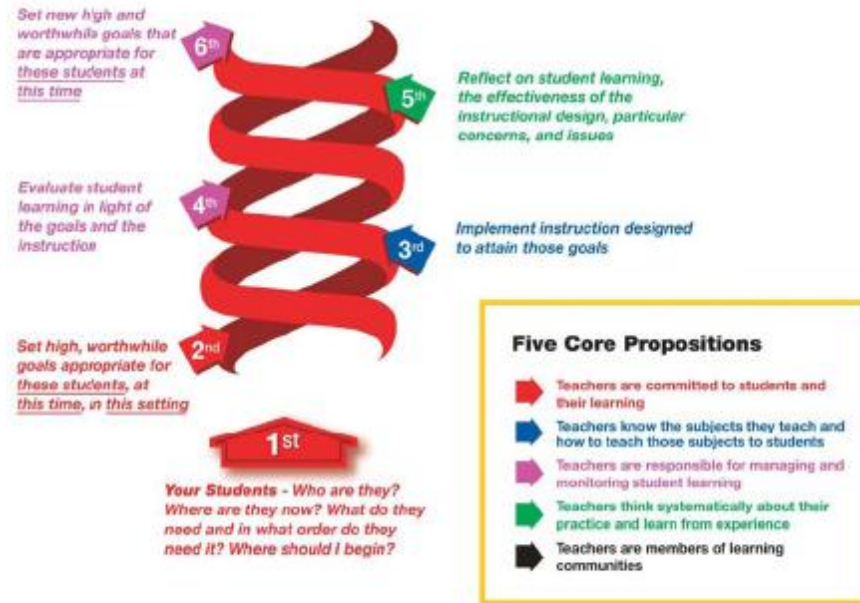
Reciprocal learning: Used in this study, reciprocal learning is the phenomenon of human learning where by people learn together as the construct new, situated knowledge. Reciprocal learning is meant to be understood as a process whereby participants in a community of practice learn from each other regardless of their position inside a complex social hierarchy

Reciprocal mentoring: Used in this study reciprocal mentoring is the phenomenon of learning, specifically the learning how to teach or apply pedagogy, while demonstrating, modeling and discussing a teacher's practice to novice. In this dissertation it is meant to be understood that mentor is a mentor-teacher and that the novice or protégé (implied in the term reciprocal mentoring) is a student-teacher

APPENDIX B

THE NBPTS'S

ARCHITECTURE OF ACCOMPLISHED TEACHING

Architecture of Accomplished Teaching Helix

The Architecture of Accomplished Teaching Helix shown below uses a double spiral to illustrate the carefully woven, upward-spiraling nature of accomplished teaching, where knowledge of students, commitment to goals, and practice of instruction, analysis, and reflection—as defined by the Five Core Propositions—develop at six closely linked stages.

6th — Set new high and worthwhile goals that are appropriate for these students at this time

5th — Reflect on student learning, the effectiveness of the instructional design, particular concerns, and issues

4th — Evaluate student learning in light of the goals and the instruction

3rd — Implement instruction designed to attain those goals

2nd — Set high, worthwhile goals appropriate for these students, at this time, in this setting

1st — Your Students - Who are they? Where are they now? What do they need and in what order do they need it? Where should I begin?

Five Core Propositions

- Teachers are committed to students and their learning
- Teachers know the subjects they teach and how to teach those subjects to students
- Teachers are responsible for managing and monitoring student learning
- Teachers think systematically about their practice and learn from experience
- Teachers are members of learning communities

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Use the following table to review the steps used to demonstrate accomplished teaching and to see how each step relates to the Five Core Propositions. The steps can guide you in planning your portfolio entries and collecting evidence to demonstrate your teaching practice.

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March 23, 2011

Mr. Daniel McCloy
Arizona State University
3223 W. Crocus Drive
Phoenix, AZ 85053

Re: Reprinting of National Board's materials

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I am writing in response to your request for permission to reprint the National Board for Professional Teaching Standards' (the "National Board") "The Architecture of Accomplished Teaching" in your dissertation. Based on your stated purpose, the National Board hereby grants you, effective upon your execution of this letter agreement, a limited non-exclusive license to reprint the National Board's Architecture of Accomplished Teaching on the terms and conditions set forth in this letter.

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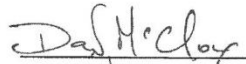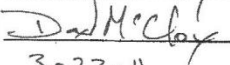
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Sincerely,

Joseph A. Aguerrebere, Ed.D.
President and CEO

AGREED AND ACKNOWLEDGED:

By: David McCloy

Name: David McCloy

Date: 3-23-11

APPENDIX C

AFFILIATION AGREEMENT

ASU
ARIZONA STATE UNIVERSITY

Affiliation Agreement
between
The Arizona Board of Regents
and
Leona Group, LLC

THIS AGREEMENT is made on **July 28, 2008** between the Arizona Board of Regents for and on behalf of Arizona State University including all campuses, and its College of Teacher Education and Leadership and the **Leona Group, LLC**.

University desires to secure adequate educational instruction and experience including educational research, learning and practice for interns and student teachers, enrolled in its College of Education; and **Leona Group, LLC** is qualified and capable of providing these experiences to support University teacher preparation programs and will benefit for the purpose of recruitment from the availability of additional certified personnel; and **Leona Group, LLC** has personnel and facilities to provide desired experience for University students.

The Parties Agree as Follows:

A.   Responsibilities of University:

1.   University will select students for placement in field instruction programs at School and will provide faculty necessary for the proper supervision of those students.

2.   University will instruct its students to abide by all written policies, procedures and rules of School.

3.   University will maintain educational standards that will prepare its graduates for certification by the State Board of Education.

4.   University will provide a student teacher supervisor to act as a liaison to School to facilitate effective communication, consultation and coordination appropriate to the educational program. The supervisor or designee will observe University student teachers periodically during their student teaching placements with School on an announced and unannounced basis.

COLLEGE OF TEACHER EDUCATION AND LEADERSHIP
Professional Field Experience

MAILING ADDRESS: PO BOX 37100, PHOENIX, AZ 85069-7100
STREET/SHIPPING ADDRESS: 4701 W. THUNDERBIRD ROAD, GLENDALE, AZ 85306-4908
(602) 543-6311   FAX: (602) 543-6350

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B. Responsibilities of School:

1. School will provide qualified personnel for the guidance of students who are placed with the School for programs and provide direct guidance, supervision and involvement for those students.

2. School will provide appropriate personnel and adequate facilities for learning purposes including sufficient space for teaching purposes and conferences with students.

3. School will provide instructional materials, library facilities and other training aids as needed to the faculty liaison and students of University for training purposes. School will inform University of any change in policy, rules or regulations which will affect the students or faculty of University.

4. School will assign each University student teacher to a qualified School classroom teacher (mentor teacher) who will mentor and supervise the student throughout the placement, subject to the following:

    a. A student teacher may be assigned any professional duties by the mentor teacher, but by no other teacher without the prior approval of the mentor teacher. A certified teacher or administrator must be within physical proximity to or otherwise immediately accessible by the student teacher under all circumstances, in case of an emergency. The mentor teacher must fully apprise the student teachers of the procedure for accessing assistance before allowing the student teacher to assume new responsibilities.

    b. Student teachers may be left on their own in the classroom for short periods of time to manage and instruct the class and make progress toward independence, subject to the following guidelines:

        1) The mentor teacher must be confident that the safety and academic progress of the student teacher and the class are insured while the student teacher is in full charge of the classroom.

        2) The student teacher must know whom to contact and how to do so, in the event of an emergency.

        3) If for any reason the mentor teacher must leave the campus while the student teacher is in full charge of a classroom, the principal or another administrator must be fully aware, available, and responsible in the event a problem arises.

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4) If a true emergency arises that requires that the mentor teacher leave the student teacher in charge of the classroom, and the principal and mentor teacher are in agreement that the student teacher is fully competent, the student teacher may substitute for the mentor teacher for a limited period of time; the student teacher may not substitute for any other teacher. In this situation, the principal must assume the supervisory responsibilities of the cooperating teacher.

C. Insurance:

1. During the term of this Agreement, University shall maintain insurance coverages (i) for general liability in the minimum amount of One Million Dollars ($1,000,000) per occurrence and (ii) for property damage of One Hundred Thousand Dollars ($100,000) per occurrence. University may maintain any or all insurance coverages through the State of Arizona, Department of Administration, Risk Management Section, self-insurance program. The liability insurance coverage of University shall be primary and not contributing with respect to any insurance maintained by the School. University's insurance coverage shall be on the basis that the coverage will not be invalidated due to any act or omission of the School or its board or council members, directors, officers, partners, employees or agents. The coverages will cover and will be limited to the acts and omissions of University Parties while arranging for or otherwise acting in connection with educational placements of University students, faculty or employees with the School covered by this Agreement.

2. During the term of this Agreement, the School shall maintain insurance coverages (i) for general liability in the minimum amount of One Million Dollars ($1,000,000) per occurrence, and (ii) for property damage of One Hundred Thousand Dollars ($100,000) per occurrence. The School may maintain any or all insurance coverages pursuant to a self-insurance program pursuant to statutory authority granted under the law of the State of Arizona. The liability insurance coverage of the School shall be primary and not contributing with respect to any insurance maintained by University. The School's insurance coverage shall be on the basis that the coverage will not be invalidated due to any act or omission of the State of Arizona, the Arizona Board of Regents, Arizona State University or the regents, officers, employees, agents of students of University.

To the extent that the School maintains any required insurance coverage through an insurer in addition to or instead of self-insurance:

(a) The insurance policy must contain a provision requiring the insurer to notify University in writing of any cancellation, alteration or nonrenewal at least thirty (30) days prior thereto.

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(b) If the School fails to carry and maintain the required insurance or to deliver certificates of insurance, then, in addition to being an event of default by the School under this Agreement, University will be entitled, but not obligated, to obtain the policies at the School's expense, and the cost thereof will be deemed to be a payment due by the School to University and shall be due and payable by the School to University upon demand.

(c) Upon request by University, the School will provide University with certified copies of any and all insurance policies and endorsements.

D. Subrogation:

None of the provision of this Agreement shall affect or impair any right of subrogation of any insurer, the entity providing self-insurance coverage for the School pursuant to this Agreement or the Department of Administration, Risk Management Section of the State of Arizona as the self-insurance provider for University.

E. Duration/Termination:

The term of this Agreement is one year, beginning on the Effective Date. This Agreement may be renewed on a year-to-year basis by written agreement of the parties. To revise or modify this Agreement, both parties must sign a written amendment. Either party may terminate this Agreement by written notice by either party to the other, no less than one semester in advance of the desired date of termination.

F. Compensation:

The School will not charge University for the use of its facilities and personnel. No compensation will be exchanged between the parties to this Agreement.

G. Non-Discrimination:

During the period of this Agreement, University and Schools agree to comply with all applicable state and federal laws, rules, regulations and executive orders on equal opportunity, immigration, non-discrimination and affirmative action. Included are Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments Act of 1972, Section 504 of the Rehabilitation Act of 1973 and The Americans With Disabilities Act. Executive Order 11246 and Executive Order 99-4 are both incorporated herein by reference and applicable to this Agreement.

H. Conflict of Interest:

This Agreement is subject to Section 38-511, Arizona Revised Statutes. This Agreement may be canceled if any person significantly involved in initiating, negotiating, securing, drafting or creating this Agreement on behalf of University is an employee or agent of the School or is a consultant to the School with respect to the subject matter of this Agreement.

4

I.   Arbitration:

Notice is provided of Sections 12-1518 and 12-133, Arizona Revised Statutes on use of arbitration.

Arizona Board Of Regents
For and on behalf of
Arizona State University West

Leona Group, LLC

By: _____

By: _____

Title: Dean of Education

Title: Recruitment Specialist

Date: _____

Date: 8/6/08

6/2003

APPENDIX D

MENTOR TEACHER INITIAL SURVEY

Note: This is a Word copy of a digital survey to be given via Google surveys. Questions 1-5, 9-10,14 & 23 are open response items. The rest of the items are Lickert-scale items with 1 representing strongly agree and 4 representing strongly disagree.

Demographics

1.   Gender: Female   Male

2.   Years of service as a professional teacher:

3.   Years of service as a mentor-teacher:

4.   Degrees earned after bachelor's degree:

5.   I have mentored _____ student-teachers from ASU prior to the fall 2010 semester.

Mentoring Process
6.   I was a student-teacher in a mentorship model similar in length and duration to the SRHS/ASU model
7.   I enjoying mentoring student-teachers
8.   Teaching is a learnable skill
9.   "Good" teaching is (open-ended item):
10.   "Good" learners are (open-ended item):
11.   I am a better teacher and educator as a result of my mentoring experience.

Reciprocal Learning
12.   I have learned and adapted a method of teaching from a previous student-teacher or intern.
13.   I think it is likely that I will learn something from my fall 2010 student-teacher.
14.   Why or why not (open-ended item):
15.   I have experienced moments where my student-teacher knew more about our field than I did
16.   I have experienced moments where my student-teacher had a better teaching method than I did for particular objective.

Cognitive Coaching:
17.   A mentor-teacher can teach a person to be more dynamic in delivering a lesson.

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18.   A written protocol or academic procedure (cognitive coaching logs, teacher journals) can be just as effective at inducing teacher self-reflection as teacher mentor.

19.   I value cognitive coaching as professional development tool.

20.   I have grown as a teacher because of cognitive coaching.

21.   Self-reflection is a coachable skill

Professional Development

22.   I am well prepared to be an effective school-based mentor.

23.   What are you lacking in your terms of professional development? What support would you like but don't currently have (open-ended item)?

24.   In terms of professional development for me is better when it is embedded in my day-to-day practice.

25.   In terms of professional development for me is better when it is embedded in my separated from my day-to-day classroom and instruction.

26.   I believe mentoring student-teacher is a valid form of professional development for me.

27.   I believe mentoring student-teacher is a valid form of professional development for veteran and mentor-teachers in general.

APPENDIX E

CYCLE ONE PROTOCOL

PRE-OBSERVATION INTERVIEW

NBPTS Proposition One: Teachers are committed to students and their learning

1. How do you get to know your students?	
2. In what ways do you demonstrate to you students that you *know* them?	
3. How do they demonstrate that know you?	
4. What behaviors, body language and signs to you look for from your students to convince you they are learning?	
5. What is the evidence or data you use to assess student achievement?	
6. When you plan a lesson how does your knowledge of the students affect your planning?	
7. When you are assessing a lesson how does your knowledge of the students affect your assessments?	
8. When you are grading a student's work, how does your knowledge of the students inform that process?	
9. If you could learn more about your students what would it be?	
10. When I observe your class next, is there anything that I can specifically look for regarding this proposition	

OBSERVATION NOTES

NBPTS Proposition One: Teachers are committed to students and their learning

Date: Period:

Student-teacher please use this sheet to take notes during the lesson.

1.   What are the students doing? And when are they doing it?

2.   What is the teacher doing?

3.   What is the lesson's objectives?

4.   How does the teacher demonstrate they are committed to the student's learning

5.   Where does the teacher spend most of their time?

POST OBSERVATION INTERVIEW

NBPTS Proposition One: Teachers are committed to students and their learning

1. How do you think your lesson went?	
2. How do you feel about the lesson?	
3. What caused you to think/feel that way?	
4. In what ways did the students meet or not meet your expectations and learning goals?	
5. What informal or formative assessments of student learning did you make while instructing?	
6. Was there anything that surprised you or was unexpected?	
7. How might you follow up this lesson?	
8. Do you have any questions for me about the lesson and this experience?	

Online Journal Prompts for both mentor- and student-teacher:
1. Describe what student learning looks like.
2. Describe when you know students aren't learning.
3. Describe what a committed teacher looks like.

APPENDIX F

CYCLE TWO PROTOCOL

NBPTS Proposition Two: Teachers know the subjects they teach and how to teach those subjects to students

1. How do you approach teaching your subject to these students?	
2. In what ways has teaching your subject enhanced your own knowledge of it?	
3. How do you know students understand the subject you teach, while teaching it?	
4. What do you look for from students to demonstrate that they have learned your subject?	
5. What do you want students to learn about your subject from you?	
6. What do you see as evidence that students didn't get your subject?	
7. How does that inform your planning of lessons?	
8. When you are grading a student's work, how does your knowledge of the students' grasp on your subject inform that process?	
9. If you could learn more about what your students don't understand about your subject what would it be?	
10. When I observe your class next, is there anything that I can specifically look for regarding content and students' understanding of it?	

Student-Teacher's Observation Notes

NBPTS Proposition Two: Teachers know the subjects they teach and how to teach those subjects to students

Date: Period:

Student-teacher please use this sheet to take notes during the lesson.

1.   What does the teacher do to demonstrate they understand the subject matter??

2.   How do they convey that understanding of the content to the students?

3.   What do the students have to do to learn this subject in this lesson?

Extra Notes:

Post-Observation Interview

NBPTS Proposition Two: Teachers know the subjects they teach and how to teach those subjects to students

1. How do you think your lesson went??	
2. How do you feel about the lesson?	
3. What caused you to think/feel that way?	
4. In what ways did the students meet or not meet your expectations and learning goals?	
5. What informal or formative assessments of student learning did you make while instructing regarding the content and their understanding of it?	
6. Was there anything that surprised you or was unexpected about their knowledge of the curriculum?	
7. How might you follow up this lesson?	
8. Do you have any questions for me about the lesson and this experience?	

Online Journal Prompts for both mentor- and student-teacher:
1.   Describe your classroom management strengths.
2.   Describe your classroom management weaknesses.
3.   How would you explain to someone how a good teacher monitors student learning.

APPENDIX G

CYCLE THREE PROTOCOL

NBPTS Proposition Three: Teachers are responsible for managing and monitoring student learning.

1.　　In what ways do you hold yourself responsible for student learning?	
2.　　How does that responsibility in inform your lesson planning?	
3.　　How does that responsibility in inform your lesson delivery?	
4.　　How does that responsibility in inform your lesson assessment?	
5.　　How you monitor lower achieving students' learning?	
6.　　How you monitor higher achieving students' learning?	
7.　　In what ways are lower and higher achieving student similar?	
8.　　In what ways are lower and higher achieving student different?	
9.　　Describe how you manage your class and students during a lesson.	
10.　　When I observe your class next, is there anything that I can specifically look for regarding classroom management and student monitoring?	

Post-Observation Interview

NBPTS Proposition Three: Teachers are responsible for managing and monitoring student learning.

1. How do you think your lesson went??	
2. How do you feel about the lesson?	
3. What caused you to think/feel that way?	
4. In what ways did the students meet or not meet your expectations in their behavior?	
5. What informal or formative assessments of students' capacity for learning did you make while instructing?	
6. Was there anything that surprised you or was unexpected about their moods, attention, or behavior?	
7. Do you have any questions for me about the lesson and this experience?	

Online Journal Prompts for both mentor- and student-teacher:
1. Describe your classroom management strengths.
2. Describe your classroom management weaknesses.
3. How would you explain to someone how a good teacher monitors student learning.
4. Name and explain briefly three keys experiences that have changed your teaching for the better?

APPENDIX H

CYCLE FOUR PROTOCOL

PRE-OBSERVATION PROTOCOL

NBPTS Proposition Four: Teachers think systematically about their practice and learn from experience.

1. When do you think about your teaching practice?	
2. What causes you to think about your teaching practice?	
3. Describe a hard lesson you have learned from teaching.	
4. Describe a lesson you have learned from teaching and learning how to teach that inspires you.	
5. What are your primary thoughts while delivering a lesson?	
6. What are the secondary thoughts that you have while teaching? Are they important?	
7. Describe the process you have used to learn from your own experiences?	
8. What surprises you the most about the field of teaching?	
9. What surprises you the most about you own teaching?	
10. When I observe your class next, is there anything that I can specifically look for regarding classroom management and student monitoring?	

NBPTS Proposition Four: Teachers think systematically about their practice and learn from experience.

1. How do you think your lesson went??	
2. How do you feel about the lesson?	
3. What caused you to think/feel that way?	
4. In what ways did your thinking change as the course of the lesson went on?	
5. What informal or formative assessments of students' of the students informed your decisions while teaching the lesson?	
6. Was there anything that surprised you or was unexpected about thinking while you were delivering the lesson?	
7. Do you have any questions for me about the lesson and this experience?	

Online Journal Prompts for the mentor- and student-teachers:
1. Describe your teaching philosophy in 100 words or less.
2. Describe the ways you have learned from you teaching experience in 100 words or less.
3. Name and explain briefly three keys experiences that have changed your teaching for the better?

APPENDIX I

CYCLE FIVE PROTOCOL

NBPTS Proposition Five: Teachers are members of learning communities

1. Describe what you to believe a community of practice or learning community?

2. Is SRHS a learning community or a community of Practice?

3. Describe the culture of SRHS.

4. Describe how you fit into this culture?

5. What role do you play here?

6. How do you resolve conflict between students, teachers, and or administrators?

7. How do you deal with conflict between your peers?

8. How do you deal kudos from your peers or administrators?

Online Journal Prompts for the mentor- and student-teachers:
1. Who do you admire in your life and educational experiences?
2. What could you do to improve the community of practice at SRHS?
3. What obstacles prevent you from doing this?
4. Name and explain briefly three keys experiences that have changed your teaching for the better?

APPENDIX J

POST-LEARNING CYCLE CONFERENCE

CURRICULUM AND MENTOR-TEACHER CYCLES 1-5

What was the NBPTS Proposition for this learning cycle between you and your student-teacher?

What difficult for you to explain to him/her?

What was easy for you to explain?

Do you think they understood what you were trying to say? Why or why not?

Do you think they agree with you?

Is there anything you think you could've explained better?

What did you take away from this learning cycle?

What more would you like to learn about your practice considering this NBPTS proposition?

Is there anything you would like to add?

APPENDIX K

MENTOR-TEACHER SUMMATIVE SURVEY

1. How do you think the formalized and recorded meetings helped you become a better mentor-teacher? Explain.

2. How do you think journaling about this project helped you become a better mentor-teacher?

3. How do you think your mentorship would have been different without this project being part of it? Explain.

4. What aspect of this experience do you think was most beneficial to your growth as a mentor-teacher? Explain.

5. Least beneficial? Explain.

6. Did you and your student-teacher ever discuss this experience amongst yourselves? What was the nature of the conversation(s)?

7. What do you believe you learned from the mentoring process with your student-teacher?

8. How do you know you learned something from this experience? What did you see or hear that lead you to think this?

9. Do you believe your student-teacher taught you something you didn't know about a specific teaching method or pedagogy? How do you know?

10. Do you believe your student-teacher taught you something you didn't know about your shared content area English? How do you know?

11. What else do you believe you learned from your student-teacher?

12. Do you have anything else to add?

APPENDIX L

STUDENT-TEACHER SUMMATIVE SURVEY

1. How do you think the formalized and recorded meetings helped your mentor be a better mentor-teacher? Teacher? Explain.

2. How do you think journaling about this project helped your mentor-teacher better mentor you?

3. How do you think your mentorship would have been different without this project being part of it? Explain.

4. What aspect of this experience do you think was most beneficial to your mentor-teacher's growth as a teacher? Least beneficial? Explain.

5. Did you and your mentor-teacher ever discuss this experience amongst yourselves? What was the nature of the conversation or conversations?

6. What do you believe your mentor-teacher learned from the mentoring process with you?

7. How do you know your mentor-teacher learned something from this experience? What did you see or hear that lead you to think this?

8. Do you believe you taught your mentor-teacher something she didn't know about a specific teaching method or pedagogy? How do you know?

9. Do you believe you taught your mentor-teacher something she didn't know about your shared content area English? How do you know?

APPENDIX M

CLASSROOM WALKTHROUGH

School Name: _____ Observer: _____ # Students: _____

Date: ___ / ___ / ___ Time: _____ Period: 1 2 3 4 5 6 7

Teacher Name: _____ Teaching Level: ☐Master ☐Developing ☐Beginning

Subject: _____ Grade: PK K 1 2 3 4 5 6 7 8 9 10 11 12 MG

CURRICULUM

Lesson Plan Present ☐ Yes ☐ No

Objective Evident To Student(s) ☐ Yes ☐ No ☐ Unable to Determine

Posted ☐ Content ☐ Language ☐ Grade Level Appropriate

INSTRUCTION

☐ Activating Prior Knowledge ☐ Building Background ☐ Classroom Discussion ☐ None

☐ Cooperative Learning ☐ Guided Practice ☐ Hands-On Manipulatives

☐ Independent Practice ☐ Learning Centers ☐ Lecture

☐ Lecture w/ note taking ☐ Modeling ☐ Presentation

☐ Project Based ☐ Support Staff Utilized ☐ Teacher Directed (Q&A)

☐ Testing ☐ Use of Rubrics ☐ Other

RESEARCH-BASED STRATEGIES

☐ Identifying Similarities/Differences ☐ Summarizing/Note-Taking ☐ Cooperative Learning

☐ Homework/Practice ☐ Nonlinguistic Representations ☐ Reinforcing Effort/Recognition

☐ Setting Objectives/Feedback ☐ Generating/Testing Hypothesis ☐ Cues/Questions/Advance Organizers

☐ Differentiated Instruction ☐ Other

ASSESSMENT: ☐ Formal ☐ Informal ☐ Authentic ☐ State Achievement Practice ☐ Other ☐ Not Observed

STUDENT ACTIONS: ☐ Listening ☐ Reading ☐ Writing ☐ Speaking ☐ Hands-On

LEVEL OF STUDENT WORK

☐ Recalling Information (Knowledge) ☐ Understanding Information (Comprehension)

☐ Using Information in a New Way (Application) ☐ Breaking Down Information into Parts (Analysis)

☐ Putting Information Together (Synthesis) ☐ Making Judgments/Justifying Positions (Eval.)

MATERIALS

☐ Audio (Content Related) ☐ Board ☐ Computer Software ☐ Not Observed

☐ Graphic Organizers ☐ Handheld Technology ☐ Lab/Activity Sheet

☐ Overhead/Board/Flip Chart ☐ Published Print Materials ☐ Realia

☐ Student-Created Materials ☐ Textbook ☐ Video

☐ Websites ☐ Worksheets ☐ Other

RETREATING/REBELLING: ☐ 0% ☐ 1-5% ☐ 6-10% ☐ 11-15% ☐ 16%+

ENVIRONMENT

☐ Current student work displayed ☐ Safe, respectful environment for learning

☐ Applicable print rich environment for current concepts ☐ Positive verbal praise/encouraging environment

☐ Clean, orderly & inviting ☐ Nurturing environment evident

☐ Seating arranged to support instruction ☐ Opportunities for equal participation

☐ Teacher movement supports student engagement ☐ Environment of cooperation

☐ Clear routines/procedures ☐ School discipline _____

APPENDIX N

INSTITUTIONAL REVIEW BOARD APPROVAL

ASU Knowledge Enterprise
Development

Office of Research Integrity and Assurance

To:	Audrey Beardsley FAB
From:	Mark Roosa, Chair Soc Beh IRB
Date:	08/04/2010
Committee Action:	**Exemption Granted**
IRB Action Date:	08/04/2010
IRB Protocol #:	1007005342
Study Title:	Learning Teaching

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.