TEACHERS' EXPERIENCES OF LEARNING THROUGH A REFLECTIVE

INQUIRY PROCESS FOCUSED ON THE RELATIONSHIP BETWEEN

TEACHING BELIEFS AND BEHAVIORS

By

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DEDICATION

To Annie - I treasure exploring the world with you! Being your mom is the most incredible gift in my life. You are growing up so beautifully, and I love you sooooooo much!!! To the moon and back, more than the whole wide world, every minute of every minute. - ☺Mom

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And to my parents – my mom and my dad – you were with me every step of the way. You always are. Thank you, Mom and Dad. I love you with all of my heart. ♥

TABLE OF CONTENTS

Page

LIST OF FIGURES

Figure   **Page**

ABSTRACT

This qualitative study examined how teachers learn when they are prompted and supported to reflect on their teaching beliefs and behaviors and the relationship between those beliefs and behaviors. The results are presented as case study narratives of the three public school teachers who participated in the study, and the narratives detail the teachers' experiences of learning through a reflective inquiry process as they each worked on a self-selected action research project and simultaneously analyzed their beliefs about teaching and learning. Through the reflective inquiry process, the teachers created a teaching platform, engaged in action research, participated in a collegial group, and experienced a critical friendship with the researcher. Although the current knowledge base includes substantial literature on learning communities, little research addresses teachers' experiences of learning within those communities. This study documented the participants' journeys through a reflective inquiry process and examined the role of reflection in their learning, specifically the impact on teacher learning when teachers reflect on their beliefs and behaviors. The data collection process consisted of interviews, group meetings, observations, post-observation conferrals, and written reflections. Each of these methods facilitated the teachers' professional development process and was used to gather data on that process. Data analysis included a recursive process of reducing and interpreting the data, with the resultant conclusions drawn from those results.

Findings include that teachers are not accustomed to thinking about their beliefs, and that the experience of doing so is an emotional and important process for teachers'

professional development. Sharing beliefs promotes accountability for teachers' practices. By creating a teaching platform and comparing teaching behaviors with those espoused beliefs, teachers experience cognitive dissonance which can motivate them to make changes to their beliefs and/or behaviors. The level of teachers' learning and improvement during this process is related to their level of engagement with teacher inquiry. Teachers' informally stated beliefs must also be analyzed for congruence with teaching platforms, as the informal beliefs may not align with the teaching platform but will continue to impact teachers' practices. For a reflective inquiry process to be most effective in impacting teacher learning and practice, the school culture must support this effort, including the open dialogue that is a key component of the process.

These findings indicate that there is a need for teachers to be supported to engage in teacher inquiry with a specific focus on their teaching beliefs. School leaders should foster a professional learning environment that facilitates this type of self-reflection and the collegial dialogue that is necessary for making significant changes to practice. Educational leadership preparation programs can use the information from this study to better understand the struggle teachers encounter when their school culture is counterproductive to reflection and learning, and glean insight as to the kinds of reflective processes that can spark teachers' growth. Prospective school leaders should graduate from leadership programs well-equipped to collaborate with teachers to create a learning community centered on reflective inquiry.

CHAPTER I

Introduction

Learning is a highly complex process that "occurs in an interpersonal context and is dynamically comprised of factors whose strength is never zero. Those factors have such labels as *motivation*, *attitude*, *cognition*, *affect*, *self-regard*" (Sarason, 2004, p. 7). When these factors are disregarded, a culture of learning cannot be established. Though learning is personal, contextual, and dynamic, the current structure of our school system is impersonal and static. The Stanford Center for Opportunity Policy in Education (2010) reports that "current structures (e.g., work schedules) rarely allow for deep engagement in joint efforts to improve instruction and learning" (p. vi). For teachers to be able to support improvement in student learning, traditional professional development practices must be transformed. A few years ago, I overheard a student declare that "we do not need to know Spanish." When asked why, she responded that it is not on the TAKS test. What led her to this belief? The answer: "My teacher told me." What teachers do and think is powerful; in fact, educational change depends on it (Fullan, 2007). Fortunately, we can challenge "the status quo by empowering teachers to make critical judgments, ask critical questions of their practice, and revise methods based on active inquiry over time" (Zepeda, 2008, p. 137).

Instead of solely analyzing teachers' techniques, as is often the case, "if we wish to understand and influence people's teaching, we must go beneath the surface to consider the intentions and beliefs related to teaching and learning which inform their assumptions" (Pratt, 1998, p. 11). Reflective practice is a means for learning from

experience, examining our thoughts and actions, developing new professional knowledge and skills, and improving the overall quality of our work (Rucinski, 2005; Schön, 1983), and should be a natural part of teachers' work, occurring throughout the day, every day. Camburn (2010) studied the impact on teacher reflection of learning opportunities that are embedded in the school context, finding that "teachers' access to embedded social interactions focused on instruction were by far the strongest predictors of their engagement in reflective practice" (p. 485). Teachers' practice can be significantly impacted by experiences that call for teachers to reflect and learn together. "Detailed prescriptions for practice, it turns out, not only constrain teacher decision making but also undermine the knowledge base of the profession and its ability to recruit and keep talented people" (Darling-Hammond, 1997, p. 92-93). This is serious cause to change the existing pattern and create new spaces for educators. Although school cultures are typically "resistant to any meaningful change, because significant change by its very nature threatens assumptions, values, norms, roles, and relationships that are part of the culture" (Gordon, 2004, p. 7), it is critical that transformed environments for teachers' professional development be established. It is essential that schools become learning environments where teachers are willing and able to reflect, learn, and effect change on an ongoing basis for the sake of school improvement.

Statement of the Problem

This study investigated the process of reflection and the role that it plays in improving practice through changes in teachers' beliefs and behaviors. Although the current knowledge base includes much research on essential characteristics of learning communities (Bray, 2002; Nelson, 2008; Wenger & Snyder, 2000), and "an abundance of

research suggests that teachers' personal beliefs drive professional practice" (Guerra & Nelson, 2009, p. 354), little research has been conducted on teachers' actual experiences of learning within collaborative structures that expect and support ongoing reflective practice, specifically regarding teachers' teaching beliefs in relation to their teaching behaviors.

Learning community research indicates that it is imperative for schools to be organized as learning organizations, an ongoing process best characterized by strong, supportive leadership with a long-term vision of and for learning; collaboration concerning authentic, data-based work problems; continuous, individual and collective, reflective inquiry; and job-embedded professional conversations and study (Gordon, 2004; Webster-Wright, 2009; Zepeda, 2008). Because classroom instruction is greatly impacted by a teacher's educational philosophy (Glickman, Gordon, & Ross-Gordon, 2010), underlying the entire concept of the learning community is the need for teachers to recognize the assumptions and educational beliefs that tend to guide their practice and drive their teaching decisions. And since "most school improvement efforts continue to focus on changing only the behaviors of educators, rather than working on both beliefs and behaviors" (Guerra & Nelson, 2009, p. 354), this study examined the relationship between teaching beliefs and teaching behaviors.

Purpose of the Study

The purpose of this study was to attend to the need for research focused on teachers' beliefs, as well as ways of impacting those beliefs to improve instruction. By studying teachers' experiences through a reflective inquiry process, I built detailed descriptions of the complex phenomenon of teacher reflection and learning. The

participants engaged in action research while focusing on their teaching beliefs and teaching behaviors throughout the process. This area of research had not been adequately explored in the literature, and my goal was to build theory regarding the relationship, as perceived by the participants, between reflection and learning, and the meaning of this relationship to the teachers. This study looked at the benefits and limitations of a reflective inquiry process. It also provides insight to school and district leaders concerning how teachers learn, and the "space" required for meaningful reflection and learning to occur, learning that leads to improved teaching practices.

Research Question

This study addressed the following research question: How do teachers experience learning, through a reflective inquiry process focused on improving instruction, when they engage in ongoing reflection regarding their teaching beliefs, teaching behaviors, and the relationship between those beliefs and behaviors?

Significance of the Study

The significance of this study is that it benefits theory and practice by contributing to a knowledge base on creating spaces for teachers to engage in reflective inquiry and continuous improvement. This study also encourages further research, on a larger scale, regarding the impact of job-embedded reflective practices focused on teachers' educational beliefs and teaching behaviors.

Adults learn most effectively through "authentic learning experiences" that are situated within and relevant to their current contexts (Zepeda, 2008). Furthermore, it is meaningful reflection that allows people to define problems, challenge assumptions, employ consideration, and make informed choices regarding solutions (Dewey, 1910;

Kolb, 1984; Schön, 1983). King and Kitchener's (2004) reflective judgment model indicates that knowledge is the result of "reasonable inquiry" into problems and solutions. This inquiry requires a suspension of judgment (Dewey, 1910) or a "deliberate pause" (York-Barr, Sommers, Ghere, & Montie, 2001), during which time one can consider his/her beliefs with respect to his/her current reality (King & Kitchener, 2004). This study provided this type of reflective environment for the participants, and I studied the interactions that occurred within that space.

Conceptual Framework

This section provides an overview of the study's conceptual framework, including its components, why each concept or theory is included in the framework, and how the various components relate to one another (see Figure 1). The concepts and theories discussed are experiential learning, constructivist learning theory, situated learning theory, teacher reflection, teacher inquiry, action research, teacher educational platforms, and the theory of cognitive dissonance.

Experiential learning formed the basis for this research. Through analysis of the participating teachers' experiences with learning as they reflected on their teaching and learning beliefs and behaviors, I studied how teachers work to improve their practice. There are multiple conceptions of experiential learning, including reflective practice, situated learning, psychoanalysis, critical self-reflection combined with collective action, and co-emergence of self and system (Fenwick, 2000, 2003). Each of these conceptions is based on a particular theory of how adults learn from their experiences. For the purpose of this study, I integrated constructivist and situated theories of learning to serve as a lens for viewing the participating teachers' learning experiences.

EXPERIENTIAL LEARNING
Constructivist Learning Theory
Situated Learning Theory

REFLECTION

Teacher
Inquiry

TEACHING PLATFORM
Theory of Cognitive Dissonance

Action
Research

ACTION
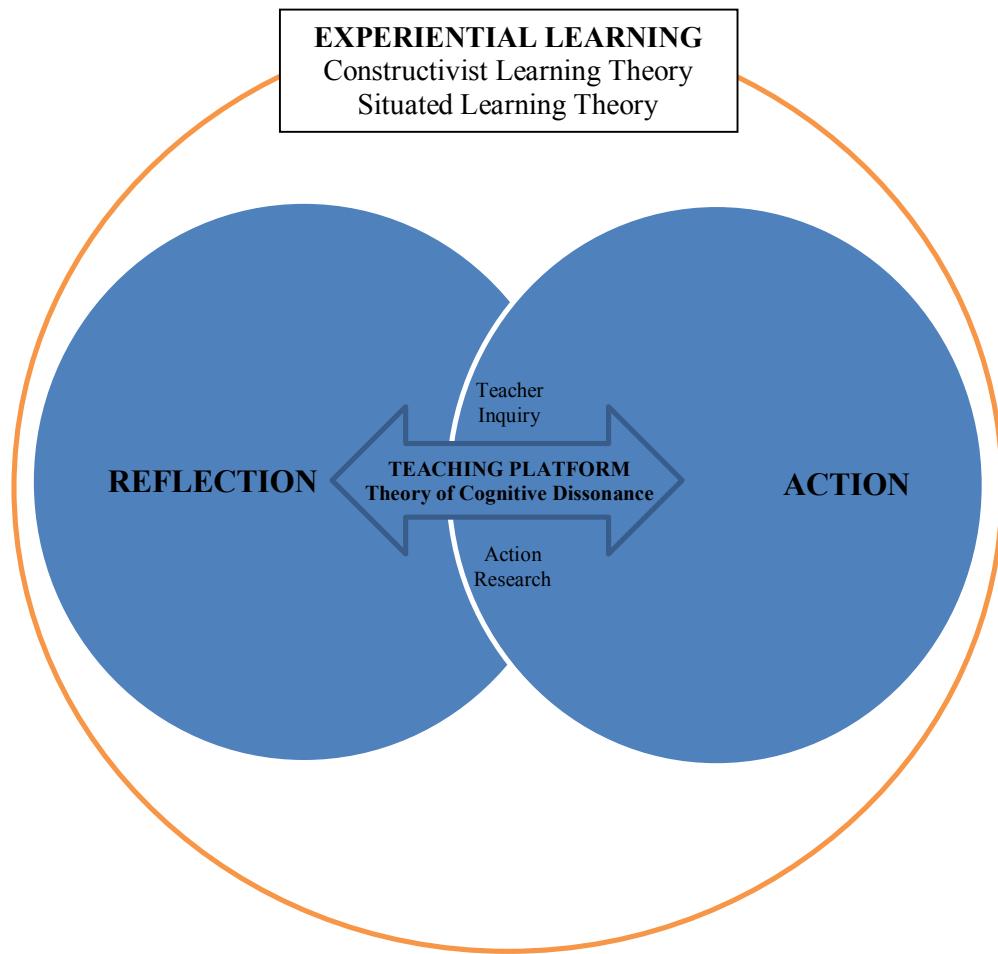
Figure 1. Conceptual Framework for the Reflective Inquiry Process

The key theory informing this study was constructivist learning theory as it relates to experiential learning: how adults experience learning by making meaning and constructing knowledge. From a constructivist perspective, reflective practice is the key component of learning from experience. According to Dewey (1910), reflective thinking is a scientific "attitude of mind" which makes continuous improvement possible. Likewise, Schön (1983) argues that reflective inquiry is a necessary practice for becoming a competent practitioner, and he refers to reflection-in-action and reflection-on-action, both which allow a professional to make sense of his/her practical work experiences.

This study was also guided by theories of situated learning, with an understanding that there are cultural and social elements that contribute to a person's experience. Reflections and experiences of learning cannot be separated from these situated elements (Lave, 1988), commonly referred to as a "community of practice," which are comprised, explicitly or implicitly, of the community's unique ways of thinking, being, and doing (Wenger & Snyder, 2000). By integrating constructivist and situated learning theories, my approach to this research was based on the belief that learning is a process of personal meaning-making inevitably influenced by the learning context. Knowledge constructions, therefore, were studied as cognitive exercises that occurred within, and likewise impacted, an inseparable social situation (Wenger & Snyder).

Guided by those learning theories, the participating teachers and I worked together to create a space where reflection and action could be continuously linked (Bray, 2002), creating an opportunity for a cycle of continuous improvement. Reflection should inform action, which should inform further reflection, and so on. Dewey (1910) argues

that we must consider our beliefs and think critically to solve problems logically and form sound conclusions (York-Barr, et al., 2001). Reflective practices can occur before, during, or after an experience (Merriam, Caffarella, & Baumgartner, 2007; Schön, 1983, 1987), and they allow the learner to create new understandings to guide new actions. York-Barr and associates (2001) provide the definition of reflective practice that was applied to this study:

> Reflective practice is a deliberate pause to assume an open perspective, to allow for higher-level thinking processes. Practitioners use these processes for examining beliefs, goals, and practices, to gain new or deeper understandings that lead to actions that improve learning for students. Actions may involve changes in behavior, skills, attitudes, or perspectives within an individual, partner, small group, or school. (p. 6)

Throughout this study, the teachers engaged in purposefully reflective practices, individually and collectively, and these practices were documented and analyzed.

Teacher inquiry was utilized as a systematic approach to instructional improvement that fused reflection with action (Cochran-Smith & Lytle, 1993; Glickman, et al., 2010). This method of professional development encourages and supports teachers to become conscious of problems and apply critical judgment to problem solving (Dewey, 1910). Additionally, the collaborative aspects of teacher inquiry support teachers, through collegial conversations, to maintain a constant focus on teaching and learning connections (Bray, 2002; Keedy, Winter, Gordon, & Newton, 2001). The cycle of inquiry, as a teaching stance, is iterative and includes identifying a focus, using data to inform the inquiry process, engaging in dialogic reflection, and applying new

understandings (Glickman, et al., 2010). Examples of teacher inquiry include teacher study groups, professional learning communities, and action research. For this study, the teachers engaged in individual action research and participated in a collegial group (Keedy, et al., 2001).

Action research is a type of teacher inquiry that focuses on and addresses immediate teaching and learning issues (Gordon, 2008). The teachers in this study identified an area of focus directly related to their individual teaching contexts, collected and analyzed data related to their focus area, defined the problem, designed and implemented a plan, and evaluated the action research process as well as the results. Throughout the process, they received support from me and the other teacher participants via reflective dialogue and participation in the group meetings.

At the start of the study, the participating teachers each articulated his/her teaching platform, an exercise intended to clarify beliefs and assumptions regarding teaching and learning (Sergiovanni & Starratt, 1983). The platforms covered topics such as the purpose of education, the role of the teacher, how students learn, and what should be included in the curriculum (Glickman, et al., 2010; Sergiovanni & Starratt, 1983). Throughout the remainder of the reflective inquiry process, the teachers referred back to their teaching platforms as a lens for analyzing their teaching behaviors, and I asked them to look for the level of congruency between their beliefs and their behaviors.

The theory of cognitive dissonance was applied to study the teachers' responses to new information (Festinger, 1957). Festinger holds that we possess a natural urge to reduce dissonance in order to maintain a state of consistency amongst our knowledge and beliefs about ourselves and our environment. He further asserts that there are three ways

to achieve this consistency: by changing one or more of our cognitions so that they align, by supporting an inconsistent cognition with additional information, or by disregarding the dissonance's importance (Festinger, 1957; Walton, 2011). Several studies have shown that when people become consciously aware of a cognitive dissonance, they are able to adjust their beliefs, their behaviors, or both (Eisenhardt, Besnoy, & Steele, 2011-2012; Golombeck & Johnson, 2004; Gordon & Brobeck, 2010).

Figure 1 (p. 6) depicts how each of the components of this study's conceptual framework relates to the others. Experiential learning and the aforementioned learning theories guided the overall belief system for this study, informing the construction of interview guides, meeting agendas, and all interactions that occurred with the participants and the data. Reflection and action were fused through teacher inquiry and action research, and were examined to uncover the participants' personal meaning-making within a social situation. Finally, the teachers' teaching platforms were continuously considered with respect to reflections and actions, and the theory of cognitive dissonance was applied to those considerations. The theories and concepts discussed in this section are each discussed in more detail in Chapter 2.

Overview of Methodology

I believe that knowledge is constructed and that there is an inevitable relationship between individual and social aspects of learning, as well as a mutual relationship between subject and object in the construction of knowledge. Therefore, constructionism served as the epistemological basis for this study's investigation of how teachers make meaning as they reflect individually and collectively in their situated contexts. My theoretical perspective was interpretivism, which holds that meaning develops through an

ongoing process of interpretation, and which supported this study's aim to observe and document teachers' experiences and how they interpret those experiences. To build theory regarding the reflective inquiry process and how reflection is used to improve practice, the methodology employed was grounded theory. Finally, an instrumental case study was the method used to study teachers in their natural work setting using action research as a professional development tool, with the larger goal of understanding the role of reflection in effecting change.

The participants included three public school teachers who were interested in reflecting on their teaching beliefs and practices. Data collection methods included individual interviews, group meetings, written reflections, classroom observations, and post-observation conferrals. Each method served two purposes: to facilitate the professional development process and to gather data on that process. Initial interviews allowed the researcher and participants to become familiar with each other, clarify the reflective inquiry process and the study's goals, and explore the teachers' beliefs about teaching and learning. During the second interview, each participating teacher articulated a teaching platform to be used as a continual reference point as he/she engaged in a semester-long action research project. Though the teachers wrote reflections as they felt inclined to do so throughout the reflective inquiry process, I also asked them to write a reflection each week specifically about their teaching beliefs in comparison to their teaching platforms. Group meetings occurred once every five to six weeks to share action research updates and reflections, and to engage in group discussions. During the time between group meetings, I observed the teachers teaching, and the teachers and I followed-up each observation with individual conferrals. Final interviews were used to

debrief with each participant regarding the reflective inquiry process and his/her learning experiences during the study. Group meetings, post-observation conferrals, and interviews were electronically recorded.

All data collected was logged and organized by case, and audio recordings were transcribed. Data was coded, and categories and themes that emerged served as the bases of case study narratives (Patton, 2002). Cross-case comparison was used to identify similarities and differences across the three cases. From the start of data collection, data analysis was ongoing, and the constant comparative method (Charmaz, 2006) facilitated the construction of grounded theory to explain how the participating teachers used reflection to improve teaching practice. A more detailed explanation of this study's research framework and methodology is discussed in Chapter 3.

Assumptions

Assumptions that were made for the purpose of this study include the following:

1. Participants would be willing to explore their educational beliefs and share those beliefs with the other participants and me.

2. Participants would be able to compare their teaching beliefs with their teaching behaviors.

3. Participants would be able to articulate their reflections in writing and orally.

4. Participants would attend the scheduled interviews and group meetings.

5. Participants would engage fully and honestly in all interactions, including reflective writings, individual meetings, group meetings, and observations.

Definition of Terms

Action research: A form of individual or collaborative inquiry that fuses action and reflection to create new understandings and produce knowledge for solving practical problems (Gordon, 2004; Reason & Bradbury, 2006)

Cognitive dissonance: A psychological state of inconsistency among cognitions, including knowledge, values and beliefs about one's self and/or surroundings (Festinger, 1957)

Community of practice: A combination of individual learners and the social situation in which the learners participate, where knowing and doing are linked by the unique aspects of the community (Lave, 1988; Wenger & Snyder, 2000)

Learning: "Learning is a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and worldviews" (Merriam, et al., 2007, p. 277)

Experiential learning: The process of learning from experience, where the learner makes connections to past experiences and future possibilities, and inevitably interacts, influences, and is influenced by a relationship with his/her environment (Dewey, 1998; Kolb and Kolb, 2005)

Reflective practice: "Reflective practice is a deliberate pause to assume an open perspective, to allow for higher-level thinking processes. Practitioners use these processes for examining beliefs, goals, and practices to gain new or deeper understandings that lead to actions that improve learning for students. Actions may involve changes in behavior, skills, attitudes, or perspectives within an individual, partner, small group, or school." (York-Barr, et al., 2001, p. 6)

Teacher inquiry: A "cycle of data gathering, reflective dialogue, and action [for] improving teachers' instruction and students' learning" (Glickman, Gordon, & Ross-Gordon, 2014, p. 41)

Teaching platform: A written document that expresses a teacher's "floor of beliefs, opinions, values, and attitudes that provide a foundation for practice" (Sergiovanni and Starratt, 1983, p. 70)

CHAPTER II

Literature Review

This review of literature addresses several views of adult learning as experiential learning. I review literature on reflective thinking, including scholarship on its different models, benefits, and methods. This chapter also explores the literature on teacher inquiry, including the nature of inquiry, the inquiry cycle, and various ways of promoting inquiry. I examine scholarship on educational beliefs, including broad philosophies of education, as well as more specific educational platforms. Finally, this review describes cognitive dissonance theory and its applications to practice.

Adult Learning as Experiential Learning

The term *experiential learning* refers to learning that occurs via an experience, regardless of whether the learning occurs before, after, or during the actual experience (Merriam, et al., 2007). This directly relates to my study because an overarching goal of this research was to understand how teachers view and approach learning in their professional work contexts. Literature on experiential learning provides important support to the overall theoretical framework of this study by addressing how adults experience their work spaces while striving to learn. Depending upon the particular theory of learning employed, there are varying views of the relationship among experience, learning, context, and learner, and these differing views reflect multiple conceptions of what it means to learn experientially.

Reflective practice is related to constructivist learning theory and is the dominant aspect of experiential learning (Fenwick, 2000). The intended outcome of purposeful

reflection is learning, also referred to in the literature as change, understanding, and improvement. Osterman and Kottkamp (2004) write that the "purpose of reflective practice is the improvement of professional practice through behavioral change" (p. 15), and York-Barr and associates (2001) define reflective practice in teaching as a process used to "gain new or deeper understandings that lead to actions that improve learning for students" (p. 6). A reflective practitioner engages in reflective practice to study his/her own experiences in an effort to become a more skilled practitioner. This represents a constructivist stance on learning which holds that people construct their own knowledge and make their own meaning, and can do so, in part, by reflecting on their own experiences (Fenwick, 2000). From this perspective, "a learner is believed to construct, through reflection, a personal understanding of relevant structures of meaning derived from his or her action in the world" (Fenwick, 2003, p. 23).

Kolb (1984) stresses that learning is a process, continuous in nature, with reflective practice representing one element of his cyclical model of experiential learning. During the learning process, knowledge gained is met with a new experience, allowing for further reflection and decision making, and resulting in an ongoing cycle of learning. Kolb believes that "new knowledge and skills are achieved through confrontation among concrete experience, reflective observation, abstract conceptualization, and subsequent active experimentation" (Fenwick, 2003, p. 46). Although Kolb's work has been critiqued for its eclectic theoretical frame (Miettinen, 2000), his four-stage model "is the one most often used in practice" (Merriam, et al., 2007, p. 175).

John Dewey, early in the twentieth century, highlighted reflective thinking as a necessary practice for productive thinking and urged that the "training of good mental

habits" serve as a unifying purpose for our schools (Dewey, 1910, p. 13). Dewey's *How We Think* "represents the conviction that the needed steadying and centralizing factor is found in adopting as the end of endeavor that attitude of mind, that habit of thought, which we call scientific" (p. iii). Dewey likened the nature of people in childhood, as naturally curious, inquisitive, and creative beings, to the markings of a scientific mind. He believed that approaching education with this mindset as the guiding principle would not only benefit individuals but the greater of society as well by "eliminating the waste that comes from inert routine" (p. 156). When reflection brings a problematic situation to consciousness, the reflective thinker is then able "to bring critical judgment to bear on the problem" (Mezirow & Associates, 1990, p. 160).

Schön (1983) argues for a new epistemology of practice that moves from a view of professional activity as an applied science to a view of *competent* practitioners as having their own "kind of knowing" that merits recognition as "professional" knowledge. Schön refers to this "artistry" of thought and action as reflection-*in*-action, and his view is that "professionals live in a world of uncertainty, instability, complexity, and value conflict, where they often must deal with problems for which no existing rules or theories learned through formal training or past experience can apply**"** (Fenwick, 2003, p. 47). Reflection-in-action allows professionals to recognize and make sense of their work experiences and make on-the-spot decisions regarding problems of practice (Merriam, et al., 2007; Schön, 1983). Schön's argument "places technical problem solving within a broader context of reflective inquiry" (Schön, p. 69).

The constructivist view of experiential learning is the dominant view (Fenwick, 2000); however, there are several competing views that find it misguided or lacking in its

explanation of how we learn. Miettinen (2000) analyzed the concept of experience as a process of gaining knowledge and found that the conception of experiential learning proposed by Kolb and widely used in adult education is an inadequate representation: "the belief in an individual's capabilities and his individual experience leads us away from the analysis of cultural and social conditions of learning that are essential to any serious enterprise of fostering change and learning in real life" (p. 71). Dewey (2008) similarly acknowledged that our experiences, although they may seem to be "fresh naïve empirical material," are actually laden with the past and within a culture of thought. To address these and other concerns, Fenwick (2000, 2003) offers four alternative perspectives on the nature of experiential learning.

One view is related to theories of situated learning which hold that learning "is rooted in the situation in which a person participates, not in the head of that person as intellectual concepts produced by reflection" (Fenwick, 2003, p. 25). Proponents of this view are critical of the personal meaning-making that is claimed by constructivists, arguing that learning is embedded in the situated context of an experience. Knowledge is not a product of a cognitive exercise; instead, "the process of knowing is essentially embodied, realized through action, and therefore often worked out in a domain beyond consciousness" (p. 26). Participating in a "community of practice" is the means for learning (Wenger & Snyder, 2000). The individual mind is not separable from the particular social situation in which it participates, and knowing is inextricably woven with doing (Fenwick, 2003; Lave, 1988). A community of practice is the "organic, spontaneous, and informal" uniting of individuals with a common purpose who "share their experiences and knowledge in free-flowing, creative ways that foster new

approaches to problems" (Wenger & Snyder, 2000, p. 140). Learning occurs through engagement with the community and its unique culture, processes, values, and discourse.

Another view of experiential learning stems from psychoanalytic theory of learning which focuses on the unconscious, that part of the mind that contains thoughts and feelings not fully accessible by the conscious mind. When our unconscious interferes with our conscious perceptions of self and experience, the ego is disturbed, "producing breaches between acts, thoughts, wishes, and responsibility," and "we learn by *working through* the conflicts" (Fenwick, 2003, p. 29). Psychoanalysts find a constructivist view of learning to be limiting, reducing it to a predominantly rational exercise that does not acknowledge one's unconscious desires and fears. Mayes (2009) examined the writings of multiple psychoanalysts to report on their views of teaching and learning, and he found an insistence that "profound and lasting cognitive transformations can occur in the student *only* [italics added] if those transformations are psychodynamically viable" (p. 562). Learning is emotional, "a relational problem of trying to think with others about the inner world in such a way that both parties feel welcomed and involved" (Britzman, 2010, p. 326). Through a psychoanalytic lens, learning is a matter of attending to our "inside-outside encounters" and coming to understand those conflicts (Fenwick, 2000).

Critical cultural theory provides another theoretical perspective of experiential learning, drawing "attention to inevitable power relations and the resulting inequities and repression circulating in human cultural systems" (Fenwick, 2003, p. 30). Critical theorists call for critical self-reflection as well as collective action to move beyond a mere acknowledgement of oppressive social structures to the resistance and transformation of those structures. In Giroux's (2003) argument for a radical pedagogy in public schools,

he stresses that it is a civic *responsibility* "to challenge dominant ideologies and regressive social policies that undermine the opportunities for connecting the struggles over education to the broader crisis of radical democracy and social and economic justice" (p. 14). Fenwick's (2000) review of the critical cultural perspective found that all authors of this view share "a belief that politics are central to human cognition, activity, identity, and meaning" (p. 15), and politics are comprised of practices and discourses which must be scrutinized and transformed in defense of democracy.

The final conception of experiential learning addressed in this review is related to complexity theories which explain the mutual enactment and emergence of person and context. This systems-oriented approach to understanding experiential learning is relatively new to conversations about education; however, there is consensus in the field for the need to challenge the dichotomous thinking which prevails and, instead, acknowledge the "complexity" of change (Fenwick, 2000)**.** Complexity theory is "concerned with wholes, with larger systems and environments and the relationships among their constituent elements or agents, as opposed to the often reductionist concerns of mainstream science with the essence of the 'ultimate particle' " (Mason, 2008, p. 5). This theory holds two premises: first, cognition and environment cannot be separated, and second, systems emerge through the "intentional tinkering of one with the other" (Fenwick, 2000, 2003). As participants change through interactions with the system, their changed selves likewise impact the system in which they participate. This phenomenon "cannot be understood except in terms of co-emergence" (Fenwick, 2000, p. 21), which aligns with the thinking of situative theorists in that the individual is viewed as inseparable from the environment. Situated cognition, however, is based on individual

development through a community of practice, whereas complexity theory is based on the emergence and self-organization of systems (Mason, 2008).

With a constructivist belief that people are capable of thinking about their actions and making meaning and knowledge, I conducted this study with theories of reflective practice as a foundation. However, I also believe that the multiple conceptions of experiential learning are not mutually exclusive, and I wanted to study teachers' learning experiences as they made professional decisions to improve their practice. This required me to be open to the spaces in which the teachers work and learn. This case study facilitated and supported reflective thinking, and documented the teachers' experiences in that regard, including my influence as a researcher and participant in the process. In addition to engaging in individual reflection, the teachers were also involved in dialogic reflection as part of a small group. To account for this community of practice, aspects of theories of situative learning were incorporated into my theoretical framework. Jordi (2011) argues for giving "primary attention to the *processes of integration* that reflective practices make possible when people are able to listen to themselves, or be listened to, or share in a collective – processes that allow for the organic emergence of conscious meaning" (p. 185). Creating this type of space and studying the interactions within was the major goal of this study.

Reflective Thinking

I introduced the concept of reflection in the previous section on experiential learning and will now expand on that discussion. This section addresses various views and definitions of reflective thinking, beginning with the influential work of John Dewey,

several different models of reflective thinking, the benefits of higher-level reflective thinking, and vehicles that promote reflection.

John Dewey on Reflective Thinking

John Dewey (1910) believed that the purpose of reflective thought is to solve "problems faced in habitual ways of action" (p. 61). He argued that we must draw conclusions by subjecting our beliefs to scrutiny rather than basing conclusions solely on empirical knowledge without the application of logic. According to Dewey, people's "most important beliefs still have only this sort of warrant" (p. 147), and he found that empirical conclusions by themselves, although useful in everyday life situations, have several disadvantages: nonreflective thinking can lead to false beliefs; an inability to deal with the novel; and laziness, presumption, and dogmatism (pp. 147-9). "The essence of critical thinking is suspended judgment; and the essence of this suspense is inquiry to determine the nature of the problem before proceeding to attempts at its solution" (p. 74). It is this "deliberate pause" (York-Barr, et al., 2001) that has the greatest impact on transforming ideas from conjecture to sound conclusions.

Reflective processes are triggered when an individual faces a problem that cannot be solved by "formal logic alone" and must "involve careful consideration of one's beliefs in light of supporting evidence" (King & Kitchener, 2004, p. 6). Dewey (1910) believed that there are five logical steps to reflection. First, an individual becomes aware of a problem, a "felt difficulty." The difficulty should then be defined, and judgment must be suspended until the problem can be thoroughly explored (p. 74). The third step is "the cultivation of a variety of alternative suggestions" (p. 75). This consideration of possibilities prevents the thinker from jumping to conclusions. Next, the idea, with

respect to the problem, must be rationalized with reasoning. Finally, the idea must be verified before becoming a conclusion. Verification is accomplished through observation and experiment, when "conditions are deliberately arranged in accord with the requirements of an idea or hypothesis to see if the results theoretically indicated by the idea actually occur" (p. 77). Dewey argued that this process is necessary for achieving critical thinking; however, the depth of time and thought necessary for each step is case-dependent. What matters most is that an individual is able to recognize a problem and then thoughtfully find the best solution. Learning from reflection presents itself as new meanings and understandings.

Different Views of Reflective Thinking

There are those who substantiate John Dewey's work and have built on it, and there are those who critique it for neglecting important aspects of experience. Jordi (2011) argues that the concept of reflection has been "raised in an atmosphere that was disconnected from nonconceptual discussions of human consciousness" regarding, for example, feelings and interactions (p. 183). Valli (1997) likewise argues that Dewey was "preoccupied with the cognitive, systematic aspects of reflection" (p. 69). Others, though, interpret Dewey as having a holistic view of reflection on experience, asserting that he believed scientific inquiry to be just one aspect of experiential learning (Schön, 1983; Shapiro, 2010). From that perspective, "concepts and meanings are not constructed in the head alone. They are generalizations of the interactions between humans and the entities of environment, in practical activity" (Miettinen, 2000, pp. 68-69).

Among differing views, "two basic processes have been identified as central to reflective practice: reflection-on-action and reflection-in-action" (Merriam, et al., 2007,

p. 174). Schön (1983) asserts that, with regards to specific problems of professional practice, instead of forcing the situation to fit available professional knowledge, these reflective processes facilitate practitioners in organizing and clarifying both the ends to be achieved and the possible means of achieving them" (p. 41). Reflection-on-action occurs when an individual thinks about a situation after it has happened. Kolb's (1984) cyclical model of experiential learning includes reflective observation as the second phase in the cycle, which occurs after a concrete experience. Kolb describes reflective observation as the ability to observe and analyze an experience from many perspectives, requiring skills such as imagination, meaning-making, inductive reasoning, and theorizing. The goal of reflective observation is to be able to move from mere attention to the ability to conceptualize multiple meaningful perspectives and choose from amongst them. Furthermore, Schön (1987) asserts that by thinking critically about the thinking that led to a particular situation, "we may, in the process, restructure strategies of action, understandings of phenomena, or ways of framing problems" (p. 28).

Reflection-in-action is the act of thinking about a situation as it is occurring. Schön (1983) argues that reflection-in-action is triggered by an element of uncertainty and consists of "on-the-spot surfacing, criticizing, restructuring, and testing of intuitive understandings of experienced phenomena" (p. 241). Because problems of practice, especially in professions with "shifting, ambiguous ends" (p. 23) such as education, are often not suitable to applied science, research must become a commonplace activity of practitioners. This research can be immediate and alter the situation as it unfolds. It can also occur after the fact and increase a practitioner's ability to reflect in action. According to Schön, there are four types of reflective research: frame analysis, repertoire-building

research, research on fundamental methods of inquiry and overarching theories, and research on the process of reflection-in-action. Frame analysis refers to the investigation of how problems and roles are framed. By becoming aware of one's own frames, alternatives can be considered. Repertoire-building research is the amassing of "exemplars," which should not only be descriptors of prior similar incidents, but should also address the "path of inquiry" (p. 317) that connected knowledge to the problem. Research on fundamental methods of inquiry and overarching theories encourages the practitioner to acknowledge the underlying principles that he/she instinctively uses as a lens for viewing new situations of practice. Lastly, research on the reflection-in-action process itself can shed light on that which is supporting and/or hindering the reflective process.

There are many different views regarding the nature of reflective thought. Although there is not one universally accepted definition of reflection, underlying most definitions is the idea that reflective thinking involves a) the consideration of something and b) learning from that consideration. The following are various definitions from the literature:

1. Reflective thought is the "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends" (Dewey, 1910, p. 6).

2. "Reflective practice seeks to identify, assess, and change the underlying beliefs and assumptions, the theories-in-use, which directly influence actions" (Osterman and Kottkamp, 2004, p. 16).

3. "Reflection in the context of learning is a generic term for those intellectual

and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations" (Boud, Keogh, & Walker, 1985, p. 19).

4. "Reflective practice is a deliberate pause to assume an open perspective, to allow for higher-level thinking processes. Practitioners use these processes for examining beliefs, goals, and practices, to gain new or deeper understandings that lead to actions that improve learning for students. Actions may involve changes in behavior, skills, attitudes, or perspectives within an individual, partner, small group, or school" (York-Barr, et al., 2001, p. 6).

As stated in Chapter 1, the definition by York-Barr and associates (2001) is the one that was adopted for this study.

Models of Reflective Thinking

Models of reflective thinking are often organized as hierarchies. Fendler (2003), however, cautions against a reflective hierarchy, asserting that it is a way of "censoring certain ways of perceiving and talking about teaching" (p. 20). This section provides information about four different models.

Valli (1997) argues for five different types of reflection: technical, reflection-in and -on action, deliberative, personalistic, and critical. Although Valli believes that these reflective processes should all be used as appropriate to a given situation, she also views them hierarchically, with critical reflection being the highest level of reflection. In addition, Valli argues that although these abilities are developmental, they can be developed through educational experiences (p. 73). Valli's five levels of reflection are based on the content and quality of reflection. Technical reflection is characterized by a

focus on technique and skills and a belief that outside experts possess and provide the necessary information and knowledge for teaching (pp. 74-75). Reflection-in and -on action "values practical, craft knowledge" (p. 76) and uses the teacher's own teaching experiences as the content for decision making. Deliberative reflection is based on "research, experience, the advice of other teachers, personal beliefs and values, and so forth" (p. 77). The teacher considers the information from these various sources to make informed decisions. Personalistic reflection focuses on teachers' own personal goals and growth as well as students' lives beyond an academic scope. This level of reflection is personal, relational, and empathetic (p. 78). Critical reflection addresses social conditions and liberation through recognition of injustices and inequities and then works to absolve them (p. 79). Valli (1997) argues that for teachers to be able to provide the type of education for which Dewey (1910) called, teachers themselves must be reflective thinkers and be able to discriminate, depending on the particulars of each situation, among the five different modes of reflection.

Wellington and Austin (1996) assert that what teachers reflect upon depends upon what they perceive to be practical, and what teachers view as practical is largely dependent upon their beliefs and values regarding education. From this "line of thought" (p. 307), Wellington and Austin delineated five orientations toward reflective practice: the immediate, the technical, the deliberative, the dialectic, and the transpersonal. Practitioners who operate from the immediate orientation are focused on day-to-day survival. They use strategies and materials based on what "seems promising" (p. 309) rather than considering theoretical principles and alternative possibilities. These individuals do not reflect. The technical orientation is focused on efficiency and "the

faithful execution of a preconceived methodology" (p. 309). Although practitioners in this mode do work from a particular methodology, it is one imposed on them by an institutional authority and it is not questioned. In contrast, the deliberative orientation is concerned with personal meaning-making, albeit still within the parameters of one's particular organizational setting. This meaning-making may cause discomfort at times, yet individuals with a deliberative orientation toward reflection continue to accept "given educational ends" (p. 310). The dialectic orientation "advocates political liberation" (p. 310). Practitioners with this orientation do not accept the status quo. "They question educational ends, content, and means…focus on political and social issues…[and] advocate political awareness and activism" (p. 310). The transpersonal orientation focuses on "universal personal liberation" (p. 311). Similar to the dialectic mode of reflection, practitioners working from a transpersonal orientation also question educational outcomes and processes; however, they do so "from a personal, inner perspective" with a focus on "self-development" (p. 311).

Wellington and Austin (1996) provide three questions for determining a practitioner's predominant mode of reflection: "Does the practitioner engage in reflective practice or not? Does the practitioner believe that education ought to be domesticating or liberating? Is the practitioner systems-oriented or people-oriented?" (p. 313). Practitioners' answers to these questions create a path of decisions that "show how their values and beliefs about education manifest as practices" (p. 314).

King and Kitchener (2004) created a reflective judgment model to detail how reflective thinking develops through adulthood. Based on the responses from hundreds of individual interviews conducted during a ten-year study, King and Kitchener concluded

that "(a) there are striking differences in people's underlying assumptions about knowledge, or epistemic assumptions; (b) these differences in assumptions are related to the way people make and justify their own judgments about ill-structured problems; and (c) there is a developmental sequence in the patterns of responses and judgments about such problems" (p. 5). King and Kitchener's seven stages of development, which culminate with the "capacity to make reflective judgments" (p. 6), are categorized into three levels: prereflective thinking, quasi-reflective thinking, and reflective thinking. At the prereflective level, an individual believes that knowledge resides in outside experts. Problems are defined by someone else, and conclusions are based on personal beliefs and opinions. At the quasi-reflective level, knowledge is viewed as uncertain. Knowledge can be constructed, and conclusions require evidence, though "the link between gathering evidence and making a conclusion is tenuous" (p. 6). At the reflective level, however, evidence and reason are used to support judgments. "Knowledge is the outcome of a process of reasonable inquiry in which solutions to ill-structured problems are constructed" (p. 7). King and Kitchener argue that because progression from one stage to the next requires a shift in views regarding knowledge and the world, development is typically a slow process. They also assert, though, that as reflective thinking develops, "earlier stage assumptions are rarely used" (p. 14).

Liston and Zeichner (1987) critiqued earlier works which promoted reflective and moral craft methods of teacher education, and argued for a moral deliberation approach. They found that "the reflective approach to teacher education limits unduly the process of moral deliberation, and the moral craft orientation leaves this deliberative process unexamined" (p. 2). With regards to three areas for reflection (pedagogy and curriculum,

underlying assumptions and consequences, and moral implications), Liston and Zeichner assert that all educational decisions and practices should be examined through a deliberately moral approach. An "ethic of duty" and an "ethic of virtue" provide two viable paths to moral deliberation. An ethic of duty relies on moral principles for the decision-making process:

> Starting with our initial considered convictions [beliefs] we go back and forth between considered convictions, moral principles, factual considerations and background theories, modifying a theoretical claim here, pruning a considered judgment there, abandoning a putative principle or background belief here, until we achieve a state of affairs in which our considered judgments, duly pruned and adjusted match with our principles and theories. (Kai Neilsen, as cited in Liston & Zeichner, 1987, p. 4)

An ethic of virtue upholds that caring relationships are critical for "moral and educational growth" and that the most important teaching disposition is a commitment to "a central core of moral virtues" (Liston & Zeichner, 1987, p. 7). As a means to achieving moral deliberation, an ethic of duty and an ethic of virtue are both intended to support teachers in confronting "the moral dilemmas of teaching in a more deliberate fashion" (p. 7).

Reflection is a means for challenging assumptions, a necessity for accomplishing significant changes in practice (Valli, 1997; Zeichner & Liston, 1987). Although Valli (1997) asserts that all types of reflection should be developed and integrated to balance "the others' deficits," she also suggests that unreflective teachers "have not developed the intellectual and moral capacities to make wise decisions or to consider the consequences of their actions" (p. 70). Learning is dependent upon an individual's ability to bring ideas

to consciousness and evaluate them, and it is the act of reflection that allows us to employ consideration and make informed choices (Boud, et al., 1985).

Vehicles for Reflective Thinking

Reflection can be developed using a variety of different tools, such as reflective writing and reflective dialogue. Gordon (2004) notes that multiple approaches can be integrated to "create synergetic opportunities for reflective inquiry and professional development" (p. 87).

Reflective Writing. Reflective writing can assist reflective thinking by helping teachers "to consider and clarify their experiences, knowledge, emotions, and beliefs" (Gordon, 2004, p. 82), and it can be done on an individual basis or as a collaborative effort. Writing and communicating about journal entries with other teachers can facilitate "collegial dialogue, mutual support, and collaborative problem-solving" (p. 82). There are many different types of reflective writing, such as free writing (Drago-Severson, 2004; Soldner, 1997), reflective letters and memos (Gordon, 2004), autobiographies (Gordon, 2004; Ketelle, 2004), and journal writing (Gordon, 2004; Martin, 2005). This section focuses on journal writing as the reflective writing tool that was utilized in this study to capture the teachers' ongoing reflections as they worked to improve their practice.

Journal writing is a means for reflecting on any number of topics related to teaching and learning. For example, writing about a critical incident requires a teacher to identify and describe a significant event in his/her teaching career and discuss its significance. Brookfield (1990) believes that this type of reflective writing promotes analysis of a teacher's assumptions regarding teaching and learning, and Cochran-Smith

& Lytle (1990) assert that it also promotes self-inquiry. A journal can additionally be used to write about particular aspects of practice or professional experiences in the form of personal "cases." In a discussion with colleagues about a teacher's case, the group asks questions, helps to clarify the problem, and proposes and analyzes possible strategies and outcomes (Gordon, 2004).

Journal writing can be an unstructured exercise or it can be guided by a specific topic and predefined reflective questions (Gordon, 2004). Greiman and Covington (2007) investigated the experiences of student teachers as they engaged in journal writing with and without journal prompts. By comparing the responses of student teachers who received prompts with those who did not, the researchers found that reflective thinking was the most frequent response from student teachers who received journal prompts, and pedagogical problem solving was the most frequent response from student teachers who did not receive the journal prompts.

Reflecting in a journal can also serve as important "self-feedback" regarding what is working, what is not working, and what individual needs a teacher may have. Martin (2005) found that journal writing promotes "deeper thinking" and can be used to "gauge understanding." In her study of 25 postgraduate student teachers, reflections on the students' own learning were examined throughout a year-long student-teaching placement. The participants were asked to reflect on their learning in an ongoing "learning journal" and to respond at the end of the course to a reflective writing prompt, based on the entries from the learning journal, regarding any changes in their beliefs about teaching and learning which they may have experienced during the year. In comparison to years prior when the students did not engage in journal writing, the

students' writing on their end-of-course assignment was significantly more self-reflective. In addition, "the level of sophistication in their general discussion of teaching and learning, and their level of self-awareness" also increased (p. 537).

In a study of seven teachers who formed a learning community, Attard (2012) functioned in the group as a participant-observer and kept a reflective journal, while the other participants wrote weekly reflections about professional experiences they thought were important to analyze. This group met for ninety minutes each week to share their reflections. Writing helped to focus their thinking for themselves and for sharing with the group, and collaborative reflection offered a "scaffolding of ideas" (p. 203) that led to additional individual reflection. Reflecting in a journal also allowed each participant to observe his/her "own knowledge construction process" (p. 202) by tracking thinking and learning over time. Sharing individual reflections with the learning community encouraged discussion about solutions. Gordon (2004) also writes about how journal writing can benefit collaboration, and he describes a "journal network" that fostered "collegiality, perseverance with staff development, openness to experimentation, and opportunities for teacher leadership" (p. 83).

Although many studies document the positive effects of journal writing on reflective thinking, there are also noted challenges to the practice. One of the major findings of Attard's (2012) study was that participating in a learning community and engaging in reflective writing requires school structures that support the time and effort it takes to do so effectively.

Reflective Dialogue. Engaging in reflective dialogue with oneself or others is another means for promoting reflection. This section discusses the following avenues for

reflective dialogue that were utilized in this study: conferencing with a critical friend, peer coaching, and group dialogue.

A *critical friend* provides a combination of support and critique. Costa and Kallick (1993) define a critical friend as

> a trusted person who asks provocative questions, provides data to be examined through another lens, and offers critiques of a person's work as a friend. A critical friend takes the time to fully understand the context of the work presented and the outcomes that the person or group is working toward. The friend is an advocate for the success of that work. (p. 50)

Because of the necessity of critique for teacher development, a critical friendship must be based on trust. "Being attentive, non-judgmental, supporting practice, and building a collegial relationship based on trust and collaboration is essential" (Hedges, 2010, p. 304). A critical friend must also be able to effectively communicate and support the individual or group with whom he/she is working.

Hedges (2010) explored the relationship between teachers and a researcher (herself) participating together in a learning community in which the researcher also served as a critical friend to the teacher participants in the study. As a researcher and critical friend, Hedges worked to integrate research with professional practice and learning. She found that by establishing a "research partnership" based on critical friendship, she was able "to constructively challenge teacher practices, support articulation of contemporary sociocultural theory that underpinned existing interests-based pedagogical practices, and move these practices forward further during the study" (p. 311-312).

Peer coaching is another means for facilitating reflective dialogue. A peer coach is a teacher who collects data while observing another teacher's teaching and then uses that information to collaborate with the teacher regarding the improvement of teaching and learning. Peer coaching is nonevaluative, nonjudgmental, collegial, data-driven, and based on trust. The clinical supervision cycle, which can be used for peer coaching, has five steps: conducting a preconference with the teacher; observing the teacher's classroom; analyzing the observation data and planning for the postconference; conducting a postconference with the teacher; and critiquing the first four steps (Glickman, et al., 2014). It is necessary for the peer coach to have the appropriate skills for completing the cycle, namely observing and conferencing skills.

The most important observation skill is the ability to first describe what was observed and *then* interpret its meaning. Nonjudgmental descriptions allow for professional dialogue about instruction. Other skills include knowing how to gather and record data, as well as how to align the logistics of the observation with its purpose. One of the most important conferencing skills is the ability to match the supervisory approach to the teacher's developmental level. According to Glickman and associates (2014), a collaborative or nondirective approach is typically more appropriate for peer coaching than a directive approach.

Group dialogue amongst teachers is another way to engage in reflective dialogue, and it can serve as a "catalyst for change" (Penlington, 2008); however, for dialogue to bring about change in teacher practice, there must be trust amongst the group members. They must be able to freely offer their own perspectives and be able to objectively listen to others' viewpoints. In addition, the dialogue must contain "an optimal level of conflict

or dissonance" (p. 1314). Gordon (2008) argues that "dialogic reflective inquiry" (the integration of dialogue, reflection, and inquiry) should be the "core function of supervision." A study of four schools engaged in dialogic reflective inquiry revealed that each of the schools had a shared vision for teacher learning that was student-centered; engaged in multiple professional learning activities such as peer observation, study groups, and action research; focused on data gathering and analysis for instructional improvement; and participated in ongoing dialogue regarding instruction. The impact of dialogic reflective inquiry on instructional practices at the participating schools included increased levels of distributed leadership, the development of a collegial culture, and improvements in teaching and learning.

Teacher Inquiry

Teacher inquiry is a systematic approach to improving instruction (Cochran-Smith & Lytle, 1993; Glickman, et al., 2010), and it includes teacher reflection as one aspect of the process (Snow-Gerano, 2005). Teacher inquiry is also an intentional way of being, a particular stance toward teaching (Cochran-Smith & Lytle, 1999; Dana & Yendol-Silva, 2003; Snow-Gerano, 2005). This section provides information regarding the cycle of teacher inquiry, teacher inquiry as a stance, individual and collaborative teacher inquiry, and different formats for collaborative inquiry.

The Cycle of Inquiry

Although authors use various language to describe the inquiry process, "common across frameworks are descriptions of teachers engaging in problem-defining, action-oriented, reflective, and iterative cycles" (Butler & Schneller, 2012, p. 1207). According to Gordon (2010), the inquiry cycle is comprised of four phases: determining an area of

focus, gathering and analyzing data, engaging in reflective dialogue, and taking action. Ermeling (2010) also asserts that there are four predominant stages of teacher inquiry: identifying a specific instructional problem, connecting theory to practice to find solutions, utilizing data to inform the inquiry process, and routinely reassessing the specific improvement goals to identify "cause-effect findings" (p. 370) about teaching and learning. Nelson's (2008) cycle of inquiry moves from focus (identifying a gap between students' learning and teachers' learning goals) to implementation (using this identified gap to inform the generation of improvement strategies) to evaluation (evaluating the impact of the teachers' own learning and changed practice on students' learning). The cycle of inquiry is a "cycle of continuous improvement" (Nelson, Deuel, Slavit, & Kennedy, 2010, p.175-176).

Inquiry as a Stance

Adopting an inquiry stance allows for sustainability of the inquiry process, more specifically described as "teachers' recursive engagement in planning, enacting, monitoring, and revising practices in order to achieve valued goals for students" (Butler & Schnellert, 2012, p. 1208). Butler and Schnellert's case study of eighteen teachers explored the impact of teacher inquiry on teacher learning and practice. Their research goals were to investigate what inquiry looked like, the role that collaboration played within the community, and how engaging in inquiry impacted the teachers' practice. When the study began, the teachers were engaged in an existing district initiative focused on adolescent literacy, and this particular district "nurtured a distributed community of inquiry comprising teachers, school-based leaders, and district-level support personnel" (p. 1209). Butler and Schnellert found that, when engaged in a community of inquiry, the

participants changed their practice by basing their teaching on learning goals they established for students.

A true inquiry stance requires that reflection and action be continuously linked (Bray, 2002). Nelson (2008) shares the results of three case studies of teachers engaged in collaborative inquiry to examine their collective activities, the questions they raised, and the knowledge that the group generated. One of the three groups experienced significant growth, indicated by transformed beliefs about teaching and learning. The difference between this group and the other two groups was the development of an inquiry stance. "They changed their instruction to incorporate these new understandings and continued to learn by collectively reflecting upon the impact on their students' academic achievement" (p. 575).

Individual and Collaborative Inquiry

Teachers can engage individually or collectively in inquiry. Individual teacher inquiry addresses a specific classroom problem and may or may not include the students in the process of selecting a focus, gathering data, and planning for improvement (Gordon, 2004). Although action research can be carried out individually in a teacher's classroom, with an inquiry stance, practice becomes "deprivatized" (Nelson, 2008, p. 552).

Collaborative inquiry supports changes in teachers' teaching practices by "systematically investigating shared problems to discover cause-effect connections between instructional plans and student outcomes" (Ermeling, 2010, p. 387). Bray (2002) explains that the intended outcomes of collaborative inquiry are professional development and improved teaching practices as well as changed school culture.

Participation should be voluntary, a year-long commitment should be made by the inquiry group members, and the group should learn about the topic of inquiry as well as about how to participate in a group. Good inquiry questions should be interesting to the inquirers, actionable, and the answer should be a current unknown. Part of collaborative inquiry involves reflecting on the inquiry process itself. Bray found that, by becoming a community of learners, inquirers grew "more comfortable with questioning assumptions and integrating critical reflection into their professional lives" (p. 87). Additionally, teacher inquiry adds to scholarship when generated knowledge is shared in public forums (Snow-Gerano, 2005). Collaborative inquiry is a "context-sensitive methodology for learning our way out of workplace difficulties" (Bray, 2002, p. 84), and there are many different formats for engaging in group learning.

Formats for Collaborative Inquiry

Study groups are a method for teacher learning that calls for teacher leadership and a focus on student data (Maloney, Moore, & Taylor, 2011; Mullen & Hutinger, 2008). Groups are comprised of faculty members who address student needs consistently in a supportive environment through small-group discussions about "student work, instructional strategies, and school-wide goals or initiatives" (Mullen & Hutinger, 2008, p. 278). Inquiry sessions can be used to "conduct initial exploration of theory or research and its potential application, or they can focus on planning, implementing, or assessing concrete improvement efforts" (Gordon, 2004, p. 71). As a type of job-embedded professional learning, study groups provide time for teachers to work collaboratively to examine their own learning and that of their students. One study group outlined the following principles to guide their group's work: "students come first, everyone

participates, leadership is shared, responsibility is equal, and work is public" (Mullen &
Hutinger, 2008, p. 278).

Maloney and associates (2011) documented the evolution of a study group which
was formed based on a mutual interest amongst teachers. The group remained together
for several years and met once a month to share updates and discuss shared readings.
Their work together led to conference presentations, district professional development,
and organized inquiry with community members. One member stated that being involved
in the study group provided her with an "awareness of issues" that "shapes everything
you do and think" (p. 48).

There are many recommendations for organizing a study group: participation
should be voluntary, leadership should be shared, the focus of study should be decided on
by the group, group norms should be established, experimentation should be encouraged
and supported, reflection should be promoted, connections between theory and practice
should be considered, and the group should be allowed to evolve naturally (Gordon,
2004). Effective organization of a study group "supports authentic meaning-making
through reflective practice, action research, effective feedback, and dialogue about beliefs
and assumptions" (Mullen & Hutinger, 2008, p. 279).

Collegial groups as defined by Keedy and associates (2001) are focused on
improving individual teacher instruction. These groups are formed to support teachers'
study of their own practices and the work involved in making meaningful changes to
those practices. Keedy and associates found that empowering teacher collegial groups
leads to teachers using "their professional autonomy to make school-wide, pedagogical
decisions and to relate collegially with their peers in reconceptualising schooling to

succeed with all students" (p. 31). In Keedy and associates' study, two separate groups of six to eight teachers met every two to three weeks to share progress on their year-long improvement goals and receive feedback from the group. The presentation portion of each meeting proceeded as follows:

Presenter year-long focus and current game plan;

Action research on game plan implementation;

Colleague analysis and feedback;

Group assessment on progress toward the year-long focus;

Colleague suggestions for the next game plan;

Presenter selection of game plan. (p. 35)

An important finding from this study was that "teacher collegial groups may empower teachers through the group norms of experimentation and dialogue" (p. 44).

Another format for collaborative inquiry is *action research*, a strategy employed to solve professional problems of immediate concern (Gordon, 2004). Action research can provide teachers with an opportunity for ongoing professional development as they address teaching and learning issues and, in the process, construct knowledge about teaching and learning. According to Gordon, this type of teacher inquiry may occur at the individual, team, or school-wide level and can be either collaborative, a joint effort of teachers and an "expert," or teacher-driven, where teachers make all of the research decisions.

Reflective inquiry is a staple throughout the action research cycle (Gordon, 2004) which consists of identifying a focus area, collecting and analyzing data, defining the problem, designing a plan, implementing the plan, and evaluating the results of

implementation as well as the inquiry process itself (Burbank, 2003; Gordon, 2004, 2008). Action research's "integrative nature" fuses research with action and action with reflection (Gordon, 2008), and this integration has the potential to impact a school culture into becoming a place where "continual formal learning is both expected and supported" (Calhoun, 2002, p. 18). Features of action research that have the potential to transform teaching practices include teacher choice in all phases of the research; data collection and reflection that is systematic; support from colleagues or a facilitator; and the presence of discomfort during the process indicative of change (Levin & Merritt, 2006). Burbank's (2003) study found that participants who were successful with their action research projects realized the nature of action research as being a reflective process instead of just a method for problem solving. Action research provides "useful structures for inquiry into practice" (p. 40).

Professional Learning Communities (PLCs) are another type of collaborative inquiry group that uses "research and school data to guide decisions that support student and teacher learning" (Mullen & Hutinger, 2008, p. 277). A learning community is one where staff members collectively engage in conversation about teaching practices, student learning, and the relationship between the two (Hord, 1997; Nelson, 2008). This type of collaborative work relies on reflective dialogue and action that are directly related to teaching and learning (Nelson, 2008). According to DuFour (2004), the following are core principles of PLC's:

- ensuring that all students learn by shifting the focus from teaching to learning,
- creating a culture of collaboration in which teachers engage in an "ongoing cycle of questions that promote deep team learning" (p. 8), and

- focusing on results regarding the relationship between established goals and actual student achievement.

Similarly, Glickman and associates (2010) find six characteristics to be common amongst most PLC's:

- shared beliefs, values, and norms;

- distributed, supportive leadership;

- collective learning;

- deprivatization of teaching;

- a focus on student learning; and

- collaboration. (469-470)

In a review of eleven studies of PLC's and their impact on teaching and learning, Vescio, Ross, and Adams (2008) found that participation in a PLC had a positive impact on teaching practice, professional culture, and student achievement. Specifically, teaching practice became more student-centered; teachers exhibited more flexibility in terms of classroom management and instruction to meet the needs of diverse learners; conversations about instruction became more goal-oriented; pedagogy more often emphasized higher-level thinking; collegiality, collaboration, and teacher learning increased, improving the professional culture; and students' learning increased as evidenced primarily by grade-level standards and achievement scores.

Regardless of the format for collaborative inquiry, as teachers engage with each other as learners, dialogue must be inquiry-based to contribute to "transformative learning with impacts on classroom practice and student learning" (Nelson, 2008, p. 578). Nelson and associates (2010) assert that the nature of conversation impacts an inquiry

group's ability to improve student learning. Conversation can be superficial or deep, and to move from congenial to collegial conversations, teachers must make a "conversational shift from sharing to inquiring" (p. 176). It is collegial conversations that allow for productive collaborative inquiry, and these conversations are characterized by "a willingness to investigate teaching-learning connections and to identify and negotiate differences and similarities in beliefs about what constitutes good teaching and meaningful learning" (p. 176).

Educational Beliefs

Teachers have beliefs, whether they are aware of them or not, about the purpose and nature of education. Since this study required teachers to explore those beliefs, this section addresses several different philosophies of education, and the concept and elements of educational platforms.

Educational Philosophy

Educational philosophy includes "the assumptions, theories, and beliefs one holds for key aspects of effective teaching, such as the purpose of schooling, perceptions about students, what knowledge is of most worth, and the value of certain teaching techniques and pedagogical principles" (Sergiovanni and Starratt, 1983, p. 304). Teachers internalize particular conceptions and attitudes about education that guide their teaching decisions (Ustuner, 2008). Five different educational philosophies covering a wide range of thought are briefly reviewed.

Perennialism is concerned with the development of the intellect and rational thinking (Johnston, 2011; Kilgour, 1996), and it holds that a proper education must "comply with unchangeable and universal facts" (Usutner, 2008, p. 181). This orientation

toward the role of education is rooted in "ancient Greco-Roman ideals of *paideia*, or 'virtuous education' " (Johnston, 2011, p. 1). The teacher serves as the sole authority whose job it is to "fill" the student with knowledge of permanent truths (Elgström & Hellstenius, 2011; Kilgour, 1996), which remain true because human nature is unchanging (Hutchins, 2010).

In schools, perennialism presents itself as the organized and systematic transmission of predetermined knowledge that is regarded as truth or "intellectual virtues" (Tanner & Tanner, 2007). Schubert (2010) refers to a perennialist thinker as an "intellectual traditionalist" who believes that the great literary works hold ideas that transcend the material world. As an example, Schubert shares Mortimer Adler's list of virtues: truth, beauty, goodness, liberty, equality, and justice. The great ideas are found in the Great Books (Hutchins, 2010; Tanner & Tanner, 2007), and the teaching of such virtuous truths is intended to preserve heritage and tradition. This can be accomplished only "by studying the history of humankind, classical literature, and major scientific discoveries, as well as by investigating essential philosophical questions" (Elgström & Hellstenius, 2011, p. 721).

According to this classicist view, individual needs and interests of the learner, as well as human experience in general, are regarded as insignificant to the functions of an education. They are viewed as merely temporal aspects of human life and, therefore, do not lend themselves to a "rational" education (Johnston, 2011); whereas, a "truth" is the result of "pure reason" (Tanner & Tanner, 2007). The aim of education is to train a person's mind to be intelligent so that the person can act intelligently for the collective good of society (Johnston, 2011). Common instructional practices that stem from a

perennialist stance toward education include teacher-directed lecture and Socratic questioning (Schubert, 2010).

Essentialism, another traditionalist perspective, also holds that the teacher's role is to convey certain content to students; however, instead of external truths, this philosophy is concerned with academic knowledge (Glickman, et al., 2010; Kilgour, 1996). Essentialists argue for a core of "essential" knowledge that should be logically organized and transmitted to students (Bagley, 2010; Elgström & Hellstenius, 2011; Null, 2007). According to Bagley, the Founder of the Essentialistic Education Society, effort should be emphasized over interest, formal learning over informal, society over the individual, subjects over personal experience, remote goals over immediate, and logical organization over psychological. Tanner and Tanner (2007) stress that "academic areas of systematized knowledge best represent the race experience that is to be transmitted to children and youth" (p. 198).

The academic disciplines most important to the essentialist for developing "mental capacities" are English, mathematics, science, history, and foreign language (Tanner & Tanner, 2007). These subjects must be clearly separated and defined and should be taught in a standard program. The intellectual growth of individuals is the primary goal of education and can be evidenced by the mastery of subject matter principles (Roberson & Woody, 2012). With an educational aim of providing a basic education and training students to think rationally (Kilgour, 1996), critical thinking is not encouraged (Usutner, 2008). The teacher as expert in his/her field is viewed as the sole authority figure who holds the knowledge that students need to acquire.

Progressivism argues against the ideas of the teacher as sole authority in the classroom and the existence of a fixed body of pertinent knowledge that should be learned (Kilgour, 1996). From this perspective, there is no absolute truth; instead, there is belief in the scientific method and the notion that old theories will be replaced by new ones. Education is not about adapting to society, but about change, a constant and rational "rebuilding of experience" (Ustuner, 2008). Learning is done predominantly through problem solving, the approach to teaching and learning is student-centered, and schools are organized and operated democratically. Each child is considered to be unique; therefore, there is a focus on child development as well as children's specific needs and interests (Kilgour, 1996). Progressivists believe that "humans can both reform and be reformed by society" (Glickman, et al., 2010).

Another progressive movement began in the late 1920's in conjunction with the crises of the Great Depression (Weltman, 2002). To address the serious domestic issues of the time, *Reconstructionism* formed from Progressivist principles, such as a focus on the scientific method, as a means for exploring and solving problems (Stern & Riley, 2001; Tanner & Tanner, 2007); however, it diverged from Progressivism with its aim of social reform (Mosier, 1951; Weltman, 2002; Tanner & Tanner, 2007). Reconstructionists believe that a public education must attend to, first and foremost, real-world problems, striving to "build a more equitable democratic society in the U.S." (Stern & Riley, 2001). To solve societal concerns, preserve the republic and its democratic ideals, and protect liberties, schools must focus on "civic responsibility" because an exploration of existing social issues and structures can only be embarked on by

"informed, engaged, and caring critics of the republic" (White, Van Scotter, Haroonian, & Davis, 2010).

This philosophical stance calls for a move away from individualism toward concern for the "common good" (Stern & Riley, 2001). As the world becomes increasingly interdependent, and individualism in America more prevalent (White, et al., 2010), "educators must teach for social cooperation, political activism, and direct democracy" (Weltman, 2002, p. 64). Reconstructionists believe that, as both the government and the governed, the people are responsible for examining and solving social, economic, and political problems to better the world (Kilgour, 1996), and that our schools are charged with providing the necessary learning environment for facilitating movement from a mindset of subject to citizen (White, et al., 2010).

To search for solutions to contemporary problems, schools must employ curriculum centered on the use of the scientific method, critical thinking, democratic decision making, and service learning (Stern & Riley, 2001), thus enabling students to consider multiple perspectives and form independent conclusions, a hallmark of citizenship in a representative democracy (Elgström & Hellstenius, 2011). From the standpoint of Reconstructionism, change is central and can be accomplished through education; learning is the result of experiences involving the solving of real-world problems; and schools and students are the "reformers of society" (Glickman, et al., 2010).

Critical Theory is another perspective which has been applied to education, though it did not begin as an educational philosophy. The idea of critical theory for the sake of "self-emancipation and social change" was developed in the 1920's at the

Frankfurt School, also known as the Institute of Social Research (Giroux, 1982). The Frankfurt School believed that Marxism fell short in addressing class struggle by relying on reason without critique. According to Habermas (1973),

> the spontaneity of hope, the art of taking a position, the experience of relevance or indifference, and above all, the response to suffering and oppression, the desire for adult autonomy, the will to emancipation, and the happiness of discovering one's identity – all of these are dismissed for all time from the obligating interest of reason. (p. 263)

The argument was not to dismiss reason; instead, it was to develop "a more fully self-conscious notion of reason" that could overcome positivistic thinking (Giroux, 1982, p. 24). Critical Theory, as a philosophy as well as a process of critique, links "the categories of history, politics, economics, and class to the concepts of culture and power" (McClaren, 2011, p. 23).

Critical Race Theory developed as an offshoot of Critical Theory to address the perceived shortcomings of Critical Legal Studies (CLS), founded in 1976 to critique the law for its reinforcement of oppressive social norms (Cole, 2012; Ladson-Billings & Tate, 1995). Critical race theorists, asserting that race is "the major form of oppression in society" (Cole, 2012, p. 168), believed CLS to be predominantly concerned with injustices based on class. Critical Race Theory examines, from a legal standpoint, power structures that support the marginalization of people of color.

Critical theorists view education as "a vehicle for social and economic transformation" (McClaren, 2011, p. 21). Paulo Freire, considered the primary founder of critical pedagogy (Giroux, 2011; McClaren, 2011; Simandan, 2011), developed a

pedagogy of the oppressed. He believed that oppression could be overcome by raising critical consciousness and engaging in dialogue to expose and transform the power structures and social forces that underlie our daily lives (Galloway, 2012; Spring, 1999). Galloway describes oppression as "an educational process of knowledge transmission" (p. 169); therefore, the teacher's role within a critical pedagogy is to promote the principles of democracy by posing problems that are relevant to students' lives (Spring, p. 151). This empowers students to question knowledge production and distribution (McClaren, 2011). Giroux (1982) argues that there is a "contradiction between the reality and promise of American schooling" (p. 17) – that schools are sustaining rather than preventing inequalities. A critical pedagogy helps students "develop a consciousness of freedom, recognize authoritarian tendencies, empower the imagination, connect knowledge and truth to power, and learn to read both the word and the world as part of a broader struggle for agency, justice and democracy" (Giroux, 2011, p. 153)

Critical Race Theory has also been applied to education to analyze the achievement gaps between white students and students of color. Critical race theorists argue that the "extraordinarily high rates of school dropout, suspension, expulsion, and failure among African-Americans and Latino males" cannot be explained by class and gender (Ladson-Billings & Tate, 1995, p. 51).

Critical Theory holds that schools operate from a "hidden curriculum" that must be exposed to combat "social control, domination, and subjugation" (Tanner & Tanner, 2007, p. 210). This hidden curriculum promotes a disparity of learning opportunities for students based on "socioeconomic class, gender, race, ethnicity, health, ableness, appearance, place of living or location, marital status, religion or beliefs, age, nationality,

and more" (Schubert, 2010, p. 23). One example of disparity are the varying levels of teacher quality, as well as the quality of materials, available for different "tracks" of students. Grant (2012) states that our country has not achieved "freedom, justice, and equality for everyone" (p. 920) and argues that the way to achieve such a state is through a "social justice vision" of education. According to Grant, this approach requires the self-analysis of personal beliefs; critical questioning, both private and public; the practicing of democracy; the encouragement of social action; and an effective system for assessing "equality."

Educational Platforms

A teacher's educational philosophy significantly impacts his/her classroom instruction (Glickman, et al., 2010). It is important, therefore, that teachers recognize the assumptions that guide their practices. A teacher can develop a written educational platform to articulate personal beliefs about teaching and learning. Sergiovanni and Starratt (1983) define an educational platform as "a floor of beliefs, opinions, values, and attitudes that provide a foundation for practice" (p. 70). Although teachers' educational platforms tend to be less formal than discussions of epistemologies and philosophies of education found in the literature, they nevertheless can serve as a basis for teaching behaviors and decisions.

Biesta (2009) argues for asking what constitutes "*good* education," specifying a need to move beyond technical aspects of education to uncover values. Instead of just arguing for "effective education," he asserts that we must ask for what and for whom it is effective. Educational platforms can address these questions by declaring "what one believes ought to happen in a process of formal education" (Sergiovanni & Starratt, 1983,

p. 80). Although the format for a platform should not be rigid, there are general elements that should be considered. Sergiovanni and Starratt offer the following eight items as important considerations for writing a platform: the aims of education, views of knowledge, social significance of the student's learning, image of the learner (how one learns), image of the curriculum (what the student should learn), image of the teacher (what a teacher is and what the teacher's role in learning should be), preferred pedagogy, and preferred school climate. In addition, Glickman and associates (2010) suggest a set of reflective questions to begin the process of building a platform:

> What should be the purpose of education? What should be the content of the
> school curriculum? Who should control the learning environment? What should
> be the relationship of teacher and students? Under what conditions is student
> learning most successful? What motivates students to do their best in school?
> What is your definition of *effective teaching*? What personal characteristics are
> possessed by a successful teacher? How should the teacher assess student
> learning? What is your definition of a *good school*? (pp. 94-95)

Cognitive Dissonance

One aspect of this study focused on whether particular reflective strategies cause cognitive dissonance, and whether cognitive dissonance, if it takes place, will stimulate changes in participating teachers' beliefs, behaviors, or both. This section introduces the psychological theory of cognitive dissonance and discusses several applications of the theory.

Festinger (1957) holds that cognitive dissonance is a psychological state of inconsistency among cognitions (knowledge, opinions, or beliefs about one's self,

behavior, and/or surroundings). Alongside the belief that there is a natural pressure to maintain internal consistency, Festinger's hypothesis is that: (a) dissonance serves as a motivating factor to reduce the dissonance, and (b) stimuli that could potentially further the dissonance will be avoided. In other words, "cognitive dissonance can be seen as an antecedent condition which leads to activity oriented toward dissonance reduction just as hunger leads toward activity oriented toward hunger reduction" (p. 3). When a person receives information that is inconsistent with his/her current understandings, the theory of cognitive dissonance can be used to explain how that person responds to the new information.

According to Festinger (1957), a person will first try to rationalize an inconsistency. Rationalizing occurs with respect to reality: "the reality which impinges upon a person will exert pressures in the direction of bringing the appropriate cognitive elements into correspondence with that reality" (p. 11). When the inconsistency cannot be rationalized, however, "psychological discomfort" ensues, and it is this discomfort that motivates a desire to achieve consistency. There are three predominant ways to reduce dissonance (Festinger, 1957; Walton, 2011): change one or more of the cognitions so that they align, add information that supports the "discrepant" cognition, or trivialize the importance of the dissonance. The first strategy for reducing dissonance can lead to personal development; the remaining two strategies can "function to discount or neutralize cognitive discrepancies," possibly encumbering the learning process (Walton, 2011, p. 776).

Cognitive dissonance theory has been applied in various ways in the field of education to study learning and change. McFalls and Cobb-Roberts (2001) incorporated

dissonance-reduction strategies into the curriculum of a course on diversity issues to see if it would help reduce student resistance. They compared two sections of the same diversity course with similar instruction provided in both; the exception was that one group received information regarding cognitive dissonance as a supplement to the regular instruction. McFalls and Cobb-Roberts' hypothesis was that making students aware of cognitive dissonance, termed "metadissonance" (being aware of experiencing the psychological state of dissonance), before they experienced it, would reduce resistance and allow for learning to take place. Students in both groups read an article dealing with White privilege and then wrote a response to it. The themes that emerged from both groups were awareness, uncertainty, and denial. A fourth theme (cognitive dissonance) emerged from the group that received the supplemental instruction. The major finding was that "when students were introduced to the theory and established an understanding of metadissonance before discussing diversity issues, fewer responses were labeled as denial, compared with the responses of students who were not exposed to the theory" (p. 170).

Golombeck and Johnson (2004) were interested in how teachers come to know. They analyzed three teachers' narratives of their experiences as learners of teaching. All three teachers recognized cognitive dissonance in their teaching as contradictions between their beliefs and their teaching practices. One teacher believed that student learning was the most important aspect of teaching; however, her actions demonstrated that she placed the most value on grades. She committed to changing her practices so that they would align with her beliefs. A second teacher believed it was important for the "quiet" students to participate, but in practice he continually interrupted their attempts to

do so. He changed his "modes of engagement." The third teacher believed that students should have ownership over the reading/writing process, yet she greatly influenced discussions based on her personal biases of texts. Through "cognitive restructuring" she changed her instructional practices to align with her beliefs. A finding from this study was that teacher learning and change can be fostered through "meditational tools" (in this case, narrative inquiry) that facilitate the recognition of emotional and cognitive dissonance.

Gordon and Brobeck (2010) explored whether coaching a mentor would help the mentor to compare his/her beliefs about mentoring with his/her actual mentoring behaviors, and if any dissonance were discovered, to rectify the inconsistencies. They hypothesized that "reflecting on one's behaviors in relation to one's platform can lead to cognitive dissonance" (p. 429). The research methods involved recording and transcribing a mentoring platform conference, three post-observation conferences in which the mentor conferred with three different teachers, three coaching conferences in which the coach conferred with the mentor, and a debriefing conference involving the coach and the mentor. The mentor of the three experienced teachers originally believed that she used a nondirective mentoring approach; however, after listening to recorded conferences, she realized that she used several different approaches. The mentor decided to change her platform from "nondirective" to "eclectic," and also made a commitment to align other mentoring behaviors with her platform. Comparing beliefs with behaviors helped "to both experience and resolve cognitive dissonance" (p. 444).

Eisenhardt, Besnoy, and Steele (2011-2012) studied the twelve-week field experiences of three pre-service teachers who each collected data on two students "with

learning and social-emotional needs that differed" from their own, and recorded the data and their reflections in a journal. All three teachers experienced dissonance between their beliefs about teaching and learning and the actual experiences they were having with each of their two assigned students. "The assignment challenged them to identify their beliefs, posit their beliefs in the developing knowledge of the two students, and within the broader context of their vision of teaching to develop justified true beliefs about teaching" (p. 7). The inconsistencies that the teachers noticed were grouped into the following categories: the importance of knowing students, students have social and emotional needs that impact learning, the importance of building positive relationships, and the role of observations and anecdotal records. Each of the recognized areas of dissonance led the teachers to challenge their beliefs about teaching, and reconceptualize "a new set of beliefs to meet the needs of their learners" (p.5).

Summary

This review of the literature discussed experiential learning as a form of adult learning from five perspectives: constructivist learning theory, theories of situated learning, psychoanalytic theory of learning, critical cultural theory, and complexity theories. Several models of reflective thinking, including the work of John Dewey, were explored, as well as the benefits of reflective thinking and vehicles that promote reflection. Literature was presented on teacher inquiry and the cycle of inquiry, teacher inquiry as a stance, individual and collaborative teacher inquiry, and different formats for collaborative inquiry. Five different educational philosophies (perennialism, essentialism, progressivism, reconstructionism, and critical theory) were discussed, and the concept

and elements of educational platforms were provided. The theory of cognitive

dissonance, including several applications of the theory, was introduced.

CHAPTER III

Research Design

This chapter addresses this study's research framework, including the epistemology, theoretical perspective, methodology, and method that comprise the framework. I explain my role as the researcher and provide my supervisory platform. Information is shared on why and how the participants were selected. I also detail the reflective inquiry process that was the focus of the study. Finally, this chapter discusses the research methods that were employed in this study, including data collection, data analysis, and ethical considerations.

Research Framework

This section provides an overview of the epistemology, theoretical perspective, methodology, and method that served as the research framework for this study.

Epistemology Informing the Study

I approached this study from the perspective of constructionism which holds that knowledge is the result of the human mind engaging with the world and objects in the world (Crotty, 1998). Meaning is not inherent in objects themselves; instead, it is co-constructed by subject and object in a fluid process that requires human consciousness. Meaning-making is neither a solely objective nor subjective act, "neither merely received nor innate" (Noddings, 2007, p. 120).

Constructionism served as the epistemological foundation for this study because it reflects my own views regarding knowledge. When my nephew Koen was pre-school age, his teacher asked him what the color of a banana is, to which Koen replied, "White."

It was unsettling to hear that his teacher dismissed his answer as wrong. "Bananas are yellow," she corrected. Was this teacher operating from the belief that knowledge is objective, leaving no room for interpretation? Maybe she had been told and had always believed, without question or further thought, that bananas are yellow. Koen, however, as I see it, was not wrong. What led him to believe that a banana is white? Constructionism holds that "all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context" (Crotty, 1998, p. 42). Koen's answer provided a great opportunity for dialogue.

The aim of this research was to understand how teachers use and make sense of reflective practices for the purpose of improving their teaching. I believe that the outcomes of this research are constructions, not objective truths. The goal was for the understandings that emerged from this study to be probable, and useful for improving instruction.

Theoretical Perspective

Interpretivism is a theoretical perspective concerned with understanding and explaining the "social life-world" as it is situated in history and within culture (Crotty, 1998, p. 67). An interpretivist approach aligns with the idea that knowledge is constructed, as social realities are made meaningful through "the process of interpreting and reinterpreting them" (p. 56). I share Crotty's belief that there are "humanly fashioned ways of seeing things whose processes we need to explore and which we can only come to understand through a similar process of meaning-making" (p. 9). Maxwell (2005) defines meaning as the ways in which people "make sense of their environment," along

with how that sense-making affects them (p. 22). This research focused on teachers'
experiences and contexts as they worked to improve practice, with the goal of capturing
the participants' meaning-making throughout the study.

Methodology

Grounded theory, "a process of inductive theory building based squarely on
observation of the data themselves" (Crotty, p. 78), is the methodology that guided this
study. According to Charmaz (2006), grounded theorists often begin their studies with
general concepts that frame their research interests, and that operate as "points of
departure" when creating interview questions and analyzing data. Even when beginning
analysis with general concepts, though, a grounded theory methodology allows the
researcher to gain sense of another's experience by working with the data without
controlling them, and thereby "grounding" theory in the data themselves (Glaser &
Strauss, 1967). It also provides the researcher with "a way of conceptualizing the
similarities of experience of an aggregate of individuals" (Rudestam & Newton, 2007, p.
43). For this study, a grounded theory approach served as a flexible system for
constructing theory regarding the process by which teachers use reflection to improve
their teaching. Additionally, following an interpretive perspective (Charmaz, 2006), I as
researcher was an inevitable part of the phenomenon being studied (Fraenkel & Wallen,
2008), a reality which I acknowledged and examined throughout the study.

Method

To understand how teachers use various reflective strategies to improve their
teaching practice, I conducted a case study of teachers engaging in action research as a
means of individual professional development. A case study is "an intensive effort to

understand a single unit of study within a complex context" (Rudestam & Newton, 2007, p. 50), and a "case" can be comprised of a person, a program, or a process (Fraenkel & Wallen, 2008). Fraenkel & Wallen distinguish between three types of case studies: intrinsic, instrumental, and multiple. Intrinsic cases focus solely on the case itself; instrumental cases also study the case, but are more interested in a larger concept that can be studied via the particular case; and multiple case studies target several cases simultaneously to support generalizations. For this research, multiple cases were studied to allow for comparison across cases. Participants also engaged in group interaction, and reflective strategies were studied in that context as well. Yin (2003) asserts that case studies are useful for studying complex phenomena in their naturally situated contexts. Rather than just studying the teachers' experiences with reflection, the aim of this instrumental case study was to understand the larger concept of reflection and its role in shaping practice. I describe the detailed use of case study in this research later in this chapter.

The Researcher's Role

My role as researcher, participant, and learner in this process was based on my beliefs about reflective inquiry and instructional supervision. To improve teachers' practices, teachers need time to examine their practices, and this requires structures that support focused, critical inquiry. Reflective inquiry is a process of reflection, experimentation, and analysis that is ongoing, and it is a process that necessarily must be deprivatized. Dialogue is a critical component. When teachers are provided with space to engage in reflective inquiry as an authentic professional development practice that is

collegial in nature, they are able to better understand their work and advance their teaching.

As I worked with the participants in this study, we together began creating that type of space, which was continuing to evolve as the study concluded. I understood that this process takes time, especially in an environment where teachers are not accustomed to engaging in deep analysis and where trust has been an issue. As the teachers analyzed their beliefs and their behaviors while engaging in action research, they were supported throughout by the various components of the reflective inquiry process to compare their behaviors and beliefs, and make changes to enhance their teaching. This type of reflection was personal, and it required that trust be established between the participants and me, as well as amongst the participants themselves. Part of my role involved continually reflecting on the process itself of developing a culture of reflective inquiry. I was conscious of being an active listener, responding consistently to the participants in terms of sincerity and acceptance, and managing the larger goal of school improvement with the teachers' individual improvement efforts.

There were many times during the study when I needed to make decisions about a participant's readiness to accept new information. I did this by being observant and by continually analyzing my own behaviors, and the impact of those behaviors, and making adjustments to my practices to best support the reflective inquiry process. In short, I engaged in the type of inquiry that I was asking of the teachers. As the teachers and I participated in this process together, my role in establishing a trusting, collaborative environment was also guided by my beliefs about instructional supervision, as I specifically served as a critical friend to the teacher participants and facilitated the

direction of our work together during individual and group meetings. To help the reader make sense of my decision making throughout the study, below I discuss my supervisory platform based on my responses to questions posed by Glickman and associates (2014).

I believe that instructional supervision is an ongoing process of providing support to enhance teaching and learning, and that the purpose of supervision is to facilitate reflective inquiry regarding teaching, learning, and the relationship between the two. Supervision is a process that can be embodied by any educator in any position, and should extend to all educators in all positions. Successful supervision of teachers requires an understanding of how to support teacher development, with a vision of teaching and learning that is founded on the notion of continuous improvement. This requires that supervisors be able to promote reflective inquiry and facilitate teachers in becoming increasingly reflective about their practices. A supervisor must be able to adjust his/her approach to meet each teacher's needs, with development as the ongoing goal. I believe that teachers have individual needs that need to be understood and addressed individually. Teachers also have a common need to be an integral part of decision-making processes regarding the improvement of teaching and learning, and to be encouraged and supported to develop an inquiry stance to teaching as described by Cochran-Smith and Lytle (1990) that is "systematic and intentional" (p. 3). Positive relationships between supervisors and teachers are based on trust and are built through active listening, ongoing dialogue, and nonjudgmental reflective questioning, and a supervisor must be willing to be "supervised" and be a participant in the process of reflective inquiry and professional development.

Instructional supervision involves facilitating self-directed improvement efforts and supporting teachers to engage in a continuous cycle of reflection and action. This requires supervisors to develop professional relationships that allow for honest analysis of teaching beliefs and teaching behaviors. The current practice of instructional supervision, in general, should be changed to be viewed and understood as a process and a way of being, rather than as a position and/or a specific activity. It should become the fabric of a school's culture and empower all teachers to engage in the process, rather than having one person, or a handful of persons, serving as "the" instructional supervisors.

As I made research decisions during this study, I remained conscious of my beliefs about instructional supervision and continually reflected on my own participation in the reflective inquiry process, and the impact of that participation, as the researcher and as a participant. Many of those reflections are included throughout Chapter 4.

Participants

The participants for this study were three K-12, Texas public school teachers. Since I was not strictly an observer during the study, and participated in the reflective processes, I wanted to work with secondary school teachers, as most of my sixteen years of experience as a teacher and administrator had been at the secondary level. The teachers were from the same school to avoid the variability and influence of different school cultures on the teachers' learning experiences, and to facilitate the group meetings. The study utilized purposeful sampling to determine the participants by selecting cases that could provide the information needed to answer the research question, and I looked for typical teachers in order to achieve representativeness (Maxwell, 2005; Patton, 2002). The teachers had 5-20 years of teaching experience, so they were neither novices to

teaching nor necessarily near retirement, and they were not considered by their principal to be nonrenewable. I met with the principal of the selected school and shared the purpose of the study and the criteria for selecting teacher participants, and then relied on the principal to create a pool of candidates. From there, I met with the prospective participants and asked for volunteers. The three teachers invited to participate were selected mainly because of their expressed interest in exploring their educational beliefs and reflecting on their teaching practices. The selected school had a principal who was willing to visit with me about his teaching staff, provided time and place for me to initially meet with the prospective participants, and professed to be supportive of the type of reflective practice and conversation that this study required.

The Reflective Inquiry Process

This study investigated how teachers experience professional learning when using reflective practices during an action research process. Throughout the study, participants examined their own thoughts and actions regarding teaching and learning. Components of the reflective inquiry process included individual interviews, group meetings, classroom observations, post-observation conferrals, and written reflections. Figure 2 provides a diagram of the reflective inquiry process.

The study began with an individual interview of each of the teacher participants, the aim being to start the process of building a relationship with the teachers and to gain insight into their personal and professional contexts (see Appendix A). Building relationship with participants is critical for establishing an environment of open communication (Merriam, et al., 2007) between the researcher and participants. During this initial round of interviews, participants were asked to think about their beliefs

Individual Interviews, Round 1
- Introductions – the researcher, the participants, and the study
- Reflective activity

Individual Interviews, Round 2
- Beliefs about teaching and learning
- Action research cycle
- Reflective activity

Group Meeting 1
Individual sharing and group discussion of:
- Teaching platforms
- Initial game plans

Implementation of action research plans

Classroom observations/Post-observation conferrals

Reflections on action research, and the comparison of teaching beliefs and behaviors

Group Meeting 2
Individual sharing and group discussion of:
- Action research status
- Comparison of beliefs and behaviors
- New game plans

Implementation of action research plans

Classroom observations/Post-observation conferrals

Reflections on action research, and the comparison of teaching beliefs and behaviors

Figure 2. The Reflective Inquiry Process

Group Meeting 3

Individual sharing and group discussion of:
- Action research status
- Comparison of beliefs and behaviors
- Plans for continuation

Individual Interviews, Round 3
- Changes in platforms and/or behaviors
- Assessment of overall process
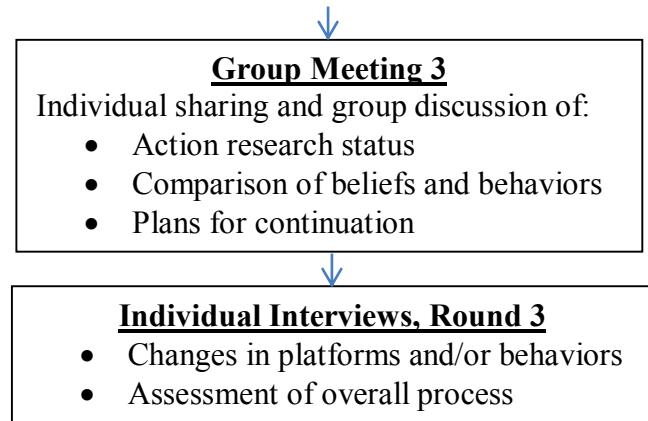
Figure 2 Continued.

regarding teaching and learning, using predetermined topics and questions as a guide (see

Appendix B), and to journal their thinking on this topic as the upcoming weeks unfolded.

The second round of individual interviews occurred approximately two weeks after the

first round. The aim of these interviews was to discover the teachers' beliefs about

teaching and learning, and to prepare the teachers for beginning their action research

projects (see Appendix C). Participants provided any journal entries they had recorded

since the first interview, and their reflections were discussed. For the next few weeks,

they were asked to select an action research topic and organize a game plan while also

journaling their decision making along the way. I explained to each participant the

intended purpose for and expected format of the upcoming group meetings. Prior to the

first group meeting, I provided the participants with a transcription of their teaching

platforms as they were articulated during the second interview.

The first group meeting occurred several weeks after the second round of

interviews, allowing time for the participants to organize a plan for their action research.

In this initial group meeting (see Appendix D), we discussed group norms and expectations, and began building a culture of learning supported by collegiality. Teachers, in turn, shared their platforms as well as thoughts from their journals regarding their teaching beliefs. Each teacher then shared his/her action research topic and game plan. The participants and I engaged in active listening and reflective questioning. During this meeting, participants provided me with the written reflections that they had recorded since the previous round of individual interviews, and I asked them to do the following during the weeks until the next group meeting, thus beginning the first action research cycle: (a) implement the game plan, (b) reflect and write about their behaviors and their thoughts during the process of engaging in action research, and (c) periodically reflect specifically on their teaching decisions in comparison to their teaching beliefs as stated in their teaching platforms.

Each of the remaining two group meetings (see Appendix E) occurred at the end of a five- to six-week research cycle. The group meetings began with each teacher sharing progress or issues concerning his/her action research project. Although the teachers were at different stages of the action research process, at each meeting they shared their new game plans as well. The teachers also shared findings from comparisons of their teaching behaviors with their platforms. As with the first group meeting, the participants and I engaged in active listening and reflective questioning. Each teacher had the opportunity to express professional concerns arising from this work and elicit feedback.

Each action research cycle consisted of each teacher designing and implementing an action plan, reflective journaling, brief pre-observation communication between the

researcher and each participant, a classroom observation, an individual post-observation conferral, and the aforementioned group meeting to share progress and reflections. The third and final group meeting followed the same format except that the teachers did not share a new game plan at this meeting because the study was concluding. Rather, the teachers discussed any general plans they had for continuation of their instructional improvement efforts.

During classroom observations, I focused on teaching decisions and classroom happenings that pertained to the teachers' action research plans. Pre-observation communications provided the participants and me with an opportunity to determine a more specific focus for the observation as well as a plan for gathering data. Post-observation conferrals allowed me to check-in regarding the action research project, collect and discuss any current journal reflections, and review teaching decisions alongside the teaching platform by using data from the classroom observations.

Teachers reflected throughout the cycle, focusing on their thoughts and actions as they worked to address their action research topics, and periodically documenting their findings in writing as they referred back to their platforms to check for congruence and/or dissonance. The final round of individual interviews occurred a week or so following the last group meeting. The specifics of these interviews were informed by the study, with the overall aim to debrief regarding the teachers' perceptions of the various reflective processes employed during the study, the teachers' learning experiences, and any changes in the teachers' beliefs and/or behaviors. The final individual meeting was also used to clarify any information shared throughout the study, share any final thoughts, and confirm my own understanding of the teachers' perceptions. While the teacher

69

participants were engaged in action research and reflection throughout this study, my research consisted of a case study of their improvement efforts and reflective practices along with my own participation in the professional development process. The following sections detail methods for data collection, procedures for data analysis, and ethical considerations for this study.

Data Collection

Several methods of data collection were employed, and each method served a dual purpose: data collection was part of a professional development process as well as the research on that process. I collected data from individual interviews, teaching platforms, group meetings, classroom observations, post-observation conferrals, and written reflections.

Interviews

Each participant was interviewed three times, twice at the start of the study and once at the study's conclusion. The interviews were open-ended, allowing flexibility to explore topics as they unfolded, but maintaining sufficient structure to ensure that certain topics and questions were covered with each participant. Patton (2002) discusses three types of interviews: informal conversational interview, general interview guide, and standardized open-ended interview. An informal conversational interview is the most flexible type of interview, as the only built-in structure is its overall purpose. The general interview guide consists of a set of topics or questions that are used as a guide for issues to be discussed. The questions or topics do not have to follow a rigid order, and conversation is free to diverge as appropriate to the task at hand. A standardized open-ended interview provides the least flexibility of the three and provides the most

consistency across interviews, facilitating comparison. Interview questions are specifically worded and ordered prior to the interview. For all interviews in this study, I strove for a conversational tone; however, because there were specific topics and questions that needed to be addressed with each participant, the interviews followed a combination of the standardized interview and the interview guide approaches. The "sensitizing concepts" that served as themes for "staying centered" (Patton, 2002, p. 348) revolved around reflection, teaching beliefs, and theories-in-use. A combined approach to interviewing was beneficial to this study because, while I was trying to capture participants' actual lived experiences, it was their experience regarding a particular issue that was of interest. Specifically, I was studying the impact on the teachers' professional learning and teaching behaviors when they purposefully reflected on their teaching beliefs.

I crafted the first individual interview (see appendix A) to focus on the teachers' personal and professional contexts. Although certain topics were covered and specific questions were asked, a conversational tone was important for beginning the process of establishing a relationship with each participant. The second individual interview (see Appendix C) focused more explicitly on the teachers' teaching and learning beliefs, as well as a discussion regarding action research. Some of this interview was informed by the discussions in the first interview, along with any communication, including journal reflections, that occurred between the participants and me prior to the interview. The concluding interview was informed by the results of the study at that point, with the main goal of these interviews being to discuss the teachers' overall experiences during the

study regarding reflection and learning, and to request any needed clarification. All interviews were electronically recorded and transcribed.

Group Meetings

I met with all three participants as a group three times during the study. The first group meeting occurred a few weeks after the second round of individual interviews, and the following two group meetings occurred at the end of each action research cycle. The initial group meeting (see appendix D) focused on the teachers' teaching platforms, reflections, and action research game plans. The remaining two group meetings (see Appendix E) followed a format based on Keedy and associates' (2001) concept of collegial groups, with each teacher sharing his/her action research progress, current reflections, and new game plans. The group meetings also included dialogue informed by recent reflections, observations, and communication. All group meetings were electronically recorded and transcribed.

Classroom Observations

There were six total classroom observations, two of each participating teacher's classroom teaching. The observations were scheduled to occur at least one week prior to the upcoming group meetings to allow time to conduct the post-observation conferrals, and transcribe and study that data prior to the group meeting. While observing the teachers' classrooms, I recorded nonjudgmental descriptions of what was observed, in the form of open-ended narratives (Glickman, et al., 2014). Based on the teachers' action research topics and lesson plans, each teacher and I, if the teacher was willing, determined a specific focus for the upcoming classroom observation to guide data collection.

Post-Observation Conferrals

There were six total post-observation conferrals, two with each teacher, and these occurred as soon as possible after each classroom observation. The primary purposes of the conferrals were to (a) discuss the congruence and/or dissonance between the teachers' teaching behaviors and the teachers' beliefs by collaboratively reviewing data from the observations and comparing that data with each teacher's teaching platform, and (b) check with the teachers concerning progress on their action research. The teachers and I worked together to interpret the observation data. Topics of conversation were informed by the teachers' action research topics and their platforms, as well as the data collected during the observations. During the conferrals, I also discussed any recent journal reflections with the teachers.

Written Reflections

Two different modes of reflective writing were utilized: a reflective journal and a teaching platform. Reflective journal writings were periodically turned in to me to copy and then return in a timely manner to the participants. The purpose of the journals was for the participating teachers to reflect on their beliefs and behaviors regarding teaching and learning, and to compare their espoused beliefs with their actual practice. Although formatting for the journal was based on each teacher's individual writing preferences, I asked the teachers to reflect on certain topics, such as their beliefs regarding teaching and learning, their decision making involved in writing a teaching platform and engaging in action research, their comparisons of their beliefs and behaviors, and their learning and overall experience with the study.

Another form of reflective writing used in this study was the aforementioned teaching platform. During the second interview, the teachers were asked to consider certain topics and respond to guiding questions regarding their beliefs about teaching and learning (see Appendix B). A transcribed copy of that discussion was provided to the participants, along with the one-page platform summary (see Appendix F) that I created for each teacher, and the participants could choose to leave the documents as they were, or revise and/or organize them as they felt it appropriate and useful to do so. The teachers shared their platforms at the first group meeting and referred to them periodically throughout the study as a tool for reflecting on their teaching and learning beliefs (Glickman, et al., 2010; Sergiovanni & Staratt, 1983), and comparing those beliefs with their professional practices.

Data Analysis

To make sense of the data, Marshall and Rossman (2011) recommend several stages for data analysis, beginning with organization of the data. I created binders to house case records (Patton, 2002) of each participant, as well as a binder for any strictly "process" data. I also maintained a log by date of all data collected, and included the time, place, participant(s), and purpose of each data source.

While maintaining organization for the duration of the study, the next phase of analysis is to become immersed in the data. I began such immersion at the start of the study and continued it throughout the study. I read the data continuously to become increasingly familiar with it and what it was saying. I was also cognizant of "how the data [were] being reduced" (Marshall & Rossman, 2011, p. 211).

The next step is to code the data and begin generating categories and themes. Because I was trying to document and explain the authentic experiences of the teachers as they engaged in the reflective inquiry process that this study employed, I applied open coding to the interview, group meeting, and conferral transcripts to create the initial conceptual categories. Although I referred to theory-generated codes (Marshall & Rossman, 2011) as themes began to emerge, I did not begin data analysis with them as a guide. Initial codes instead came from "the actual words and behaviors in the data" (p. 213) along with my own practical insight and knowledge of the literature. After the transcripts were coded, I applied axial coding to search for commonalities and group the categories that emerged through open coding. At this point and throughout the remainder of the coding process, I referred back to the literature review, the conceptual framework, and the research questions for comparison with the emerging themes. The teachers' written reflections and observation data were also analyzed for categories and themes.

Triangulation within each case consisted of comparing data gathered through interviews, group meetings, reflective writings, classroom observations, and post-observation conferrals. I compared the different types of data for consistency, identified areas in need of further data, and gathered additional data as necessary to explain inconsistencies and fill gaps in the developing body of data. Triangulation of methods provides "a more complete and accurate account" of the teachers' perceptions than any one data source alone (Maxwell, 2005, p. 94). The goal of utilizing multiple data collection methods is to uncover the participants' real thoughts and behaviors, and to assist in achieving "credible" interpretations (Marshall & Rossman, 2011, p. 42).

Periodically throughout the research process, I wrote memos (Marshall &

Rossman, 2011) regarding research decisions, the data, curiosities, the reflective inquiry

process, theories, and emerging themes. Marshall and Rossman assert that memo writing

helps the researcher to remain connected with the data, identify conceptual categories,

recognize gaps in the data, and generate insight. I constantly searched through the data

and evaluated the developing understandings by checking my themes with the data, the

literature review, and my original conceptual framework. Throughout the phases of

analysis, data reduction and interpretation were recursive, and this constant comparative

method of analysis (Charmaz, 2006) supported the construction of grounded theory.

Data analysis led to descriptions of each teacher participant's experience of

reflection and learning during the reflective inquiry process, and these descriptions are

presented as case study narratives (Patton, 2002) to portray each unique case for the

reader. Analysis also utilized cross-case comparison to identify themes that cut across the

three cases, as well as significant differences between cases. Cross-case comparison

provides the researcher a means for neutralizing "information-processing biases" by

looking at the data across cases in various ways: by category, by case, and by source

(Eisenhardt, 1989). By applying "structured and diverse lenses" to the data, I was able to

capture the participants' real perceptions concerning the study's processes and its

outcomes, and "improve the likelihood of accurate and reliable theory" (p. 541).

Ethical Considerations

I conducted this study as an "ethically engaged" (Marshall & Rossman, 2011, p.

44) researcher and participant in the process. Not only was the design of the study based

on accepted standards of qualitative research practice, but I also operated with the best

interest of the common good as a moral guide in order to create a "community of shared understanding and interest" (Booth, Colomb, & Williams, 2008, p. 275). In addition to the goal of completing my dissertation, this study was always focused on the participants' professional development. To assure that participants were not harmed, I approached the study with "respect for persons, beneficence, and justice" (Marshall & Rossman, 2011, p. 47) by acknowledging the participants' views and allowing the data, not the researcher, to dictate the outcomes of the study. In short, I was a learner in the process as well as being the researcher and a participant, and this study was approached as a "conversation among equals" (Booth, et al., 2008, p. 275).

To keep participation confidential and ensure anonymity for the participants and their school community, I have used pseudonyms and do not include any information in the study that might reveal the participants' identities. A research participant consent form, which was discussed with each potential participant, detailed the purpose of the study and the methods, and included signature lines granting written permission from each participant to participate, to be recorded, and to be anonymously quoted. Participation was fully voluntary, and prior to addressing consent, I discussed with the participants the details of the study, the commitment necessary for participating, and potential risks and benefits of participation. Along with sharing the research question that drove the study, I also shared with the participants my personal goals as well as a résumé of my qualifications.

I did my best to accurately represent information shared by the participants, and provided summaries of the case study narratives to the participants for their review. To keep data secure, all electronic data was stored on my home computer which was locked

by a password, and all paper data was stored at home in a safe place. The electronic recordings of participant interviews were destroyed at the conclusion of the study. Other data will be maintained until any presentations or publications based on the study have been completed.

Summary

This chapter discussed the epistemology (constructionism), theoretical perspective (interpretivism), methodology (grounded theory), and method (case study) that formed the research framework for this study. I provided information about my role as the researcher which included my supervisory platform. I also shared information about the participants, as well as how and why they were selected. This chapter explained the reflective inquiry process that was used to investigate the teachers' experiences of learning, and I provided a diagram of that process. The multiple methods of data collection were also explained, including individual interviews, teaching platforms, group meetings, classroom observations, post-observation conferrals, and written reflections. The process for data analysis was discussed. This chapter concluded with a discussion of the study's ethical considerations.

CHAPTER IV

Results

This chapter provides a detailed description of the teachers' experiences of reflection and learning during the reflective inquiry process used in this study. I describe their experiences in the order that they occurred, beginning with the first round of individual interviews, moving through the group meetings and observation cycles, and concluding with the final round of individual interviews. At the end of each section, I provide commentary about my thoughts as the researcher at that particular point in the study, including my own reflections as well as emerging themes. This chapter concludes with a brief summary of each teacher's experience.

The Participants and Their Professional Contexts

The purpose of the first round of individual interviews (see Appendix A) was to begin building a relationship with each of the three teacher participants and to seek insight regarding their professional working environments. I was interested in the teachers' teaching backgrounds, predominant teaching philosophies, perceptions of the school culture in which they work, and thoughts about reflection and its role in professional learning and improvement. All three participants were employed in the same secondary public school in Texas, a school at which I also worked for seven years as a teacher and administrator. Prior to this study, Henry, Elena, and I were colleagues for several years, and Lilian and I met briefly during her hiring process in my last year at the school. These teachers volunteered to participate in this study and were selected mainly

because of their expressed willingness to reflect on their teaching beliefs and practices, and to share and discuss those reflections with the study group.

Lilian

Lilian became a teacher after serving three years of active duty in the United States Army and then moving from job to job. While she was working as a supervisor in a summer youth program, Lilian was approached by the Superintendent of Schools who, having observed Lilian working with the students, offered her a position as a special education teaching assistant. With encouragement and support from the superintendent as well as her former math teacher and coach, Lilian went back to college full time at the age of 35 to begin her career as a public school teacher. According to Lilian, the military reinforced her natural tendency for organization, a skill she found useful for transitioning into the teaching field. At the time of this study, Lilian had been working as a math teacher and athletics coach for seven years at the same school, and she loved her job:

> I love waking up every day and teaching. I love it. Now if you asked me that before I became a teacher, I was not happy. I went from job to job to job. I could not find my niche, and then when I got into teaching, I knew that was my niche. I'm happy.

It is this happiness, the happiness that comes from finding your "awesomeness" and working towards it, that Lilian wanted for all of her students.

Though Lilian was admittedly and observably happy about being a teacher, she did harbor concerns about her professional working environment. Lilian believed in collaboration and sharing ideas, but this is not what she was experiencing. "There's no collaboration except within our grade subject area, and we don't have any input…you

don't get to ask any questions. I don't feel that's very professional for us." Not being provided with meeting time, and being sent to trainings that seemed irrelevant to her teaching needs and goals, were viewed as hindrances to the type of collaborative culture that Lilian desired. She considered the school staff to be a family, but a family that was "working scared." Lilian felt there was an unhealthy focus on the state-mandated test that detracted from student learning and growth, and that had teachers concerned for their jobs.

Regarding reflection and the role that it played in her work as a teacher, Lillian shared that she was constantly reflecting, asking herself daily questions such as "What could I have done differently?", "Could I have done this?", and "Would this have worked?" She was not in the habit of writing down any of her reflections but shared that maybe she should because she forgets. Her belief about this study was this: "I'm probably going to gain a lot of stuff from your project here. I can just feel it. I'm probably going to change my teaching, but I don't mind."

Henry

Henry had been an art teacher for eighteen years, all of which, except for the first year, were at the same school. Prior to becoming a teacher, Henry worked for ten years in the retail business until he realized that he was not really serving anyone in a manner that he considered valuable. Henry instead wanted to share his knowledge and make a difference in people's lives. With the understanding that "I know art," Henry decided to serve others by teaching what he knows, and he went back to school to study art and earn a teaching certificate. When he was in college, one of Henry's professors stated that all learning is self-learning, and this greatly impacted Henry as a teacher. He believed

strongly that students must have a commitment to learning, but he was also adamant that a teacher must never stop trying to encourage that commitment. According to Henry, "if a student is unsuccessful, then the teacher is a failure also." Henry believed that student learning is encouraged when teachers and administrators show appreciation for students' successes. During our initial interview, Henry revealed very little about his work environment; however, he did share that his school recognized, in various ways, student achievements, and that this recognition made students feel they had done something worthwhile.

Reflection, for Henry, was an ongoing process of thinking about learning and thinking about art. As he reflected on his work, Henry often asked of himself, "How can this apply to my students?" Although Henry explained that he seldom wrote down any of his reflections and instead just tried to remember them, he often created his reflections, "the many art works in my head," in physical form.

Elena

Elena discovered at a young age that she wanted to be a teacher. She often cared for her piano teacher's children, and it was during those times that Elena would teach the children how to do various things, such as swinging a bat and hitting a ball. The praise that Elena received from the children's mother helped her recognize that she was good at this. "I think it just grew from that, and then there's just literally nothing else I wanted to be."

As a math teacher with twelve years of teaching experience, all of which were at the same school, Elena believed in building rapport and mutually respectful relationships with students, and she felt that her own struggle with math when she was in school

helped her to relate to the students. Elena also felt that this year had been the most difficult of her career, and she alluded several times to being in survival mode. "These kids don't know how to sit in their seats, they're not learning, [and they] have zero patience for anything because they get things instantly." Elena found herself managing behavior more than teaching, and she worried about whether or not she could have a significant impact on the students' lives when she was just "one out of 12,000 pieces" of a very complex situation.

At a general level, Elena sensed that drastic change was required in our system of public education, and she was becoming increasingly concerned because her own two young children were soon to be school age. At the school level, Elena was frustrated by all of the "other things [that] get in the way of the actual planning and collaboration." Though she loved working with other teachers, rarely did her entire math department get together, and when they did it was for "purely logistical things." Time was a barrier, as was the culture of the school. "Everything just doesn't make sense, so you don't say anything. It's not a learning environment at all."

Elena believed that her "fly by the seat of my pants" style of teaching was a result of her years of teaching experience and constant reflection. "What I did today, how far I got today, and what I know that the kids know today is what affects what I do the next day." The learning objective for each day's lesson was the springboard for Elena's reflection; she felt that if the students were not grasping the material being taught then she needed to think about what worked and what did not, and then do something better. Elena shared that she was not accustomed to writing down any of her reflections.

Researcher's Commentary

At the conclusion of each of the first interviews, I asked the teachers to think about, prior to the second round of interviews, their beliefs regarding teaching and learning, as well as what prompted those thoughts. I also provided them with a list of topics and questions (see Appendix B) that we would discuss during our next interview in order to extrapolate their teaching platforms. A commonality revealed during these initial interviews was that all three participants espoused a strong belief that reflection was a constant and important part of their professional work as teachers. Lilian and Elena, however, also shared that there was no reflection built into their school culture. Another similarity was that each teacher expressed unfamiliarity with the idea of a teaching platform, yet each teacher showed definite interest in the idea of thinking about their teaching beliefs. As the researcher, I was conscious of not taking for granted that these teachers were being asked and were sharing very personal information about themselves and their professional lives, and I was pleased with the conversations thus far, sensing that trust was quickly being either established or deepened, and that this was critical for open communication as I worked with the teachers. The next section details the teachers' teaching platforms as they were expressed to me with respect to the predetermined list of topics.

The Teachers' Teaching Platforms

The goal of the second round of individual interviews (see Appendix C) was for the teachers to articulate their beliefs about teaching and learning by discussing the following nine topics which were provided to them prior to the interview:

- aims of education/purposes of schooling,

- the significance of school for students,

- what it means to learn,

- what it means to teach/the definition of effective teaching,

- the role of the teacher,

- the role of the student,

- the content of the curriculum,

- what should be assessed/measured, and

- the ideal school/school culture.

I also asked the teachers to share about the reflective processes they had used when considering their teaching platforms.

Lilian's Platform

Lilian explained that she had been thinking about her teaching beliefs and the platform topics, and that she was always reflecting about her teaching and her students' progress with learning objectives. "I don't think I go a day without thinking about that." Regarding the platform, Lilian expressed the following beliefs:

1. The purpose of schooling is to inspire students to want to learn, and provide them with opportunities to build confidence.

2. School is significant for students because "it helps to open up doors for them that otherwise would be closed," doors that support students in becoming happy and successful, productive citizens. "I want them to find their awesomeness and work towards it, and be the best person they can be. I want them to be happy." Lilian believed that if the students were asked about the

significance of school, however, "they would probably say, 'So we can learn math and learn how to read, and go to college.' "

3. To learn is to acquire information that you need for making decisions, and then apply that information to problem solving.

4. To teach is to assist students in becoming problem solvers, and Lilian had students "think out loud" so that together they could analyze the learning complications:

> You've got to be able to solve your problems, and I tell my kids that all the time. You can't quit. What are you going to do when you come across a problem in your life? Are you just going to give up? No. Well, what are you going to do? Well, I don't know. Well, you've got to be able to solve it. You've got to look at your options. You have to work through it. They're not going away. Your problems don't go away. You have to work through your problems.

5. The teacher's role is to build caring relationships with the students, know what is going on in their lives and how it is impacting their behavior in school, guide them to learn responsibility and make good decisions, inspire them to find their purpose in school, make the math curriculum applicable to them, and "love them no matter what."

6. The student's role is "to learn to be responsible and to participate. I want them to learn with each other, and to be able to explain their thinking to me. I want them to come ready to learn, ready to be part of our awesomeness." Lilian believed that her students would have quite a different response regarding

their role in school: "Probably to pass the test. That's pretty much how my kids see school. I've got to pass that test, the STAAR (State of Texas Assessments of Academic Readiness)."

7. The school curriculum should consist of reading, writing, and arithmetic because "that's day-to-day life. We use those things." Lilian believed that all of the subjects are important, but they should be connected with a focus on "the three R's." She also strongly believed that the curriculum should consider each student's interest, and "go into depth with what [the students] want to be." Instead of depth, however, Lilian felt that schools "just skim the top, and then [the students] don't really have any understanding." She was also adamant that there is too much focus on the state test: "We are so worried about that test now. I feel like my hands are tied. I have to teach these things and these things only."

8. What should be assessed in school is progress and growth, rather than passing. Though Lilian shared, "I don't know how to assess growth," she was deeply concerned by the narrow and low standard for student learning:

How much better did you get? That's what I think we should do, but we don't. It's all about passing. You've got to pass that test. And, I know in life, we've got to pass the test. I mean, as a teacher, I had to pass the test. Eighty percent I had to get on my teacher test. You know what my kids have to get in math in eighth grade to pass? Thirty-nine percent. How sad is that? Where in our life is thirty-nine percent passing?

9. The ideal school would be a professional learning community. "I think

   teachers should be able to sit down and discuss what best practices are, share

   ideas, be a village," and students should have "freedom to be able to express

   themselves, find their interests, and let us build on those." Lilian also believed

   that the ideal school would start and end later for middle school, fully

   incorporate hands-on technology, and be enjoyable.

Henry's Platform

Henry shared that he had been thinking about the platform topics and had jotted

down some notes prior to the interview. His reflection occurred throughout the day

during quiet moments and, when he recognized that a thought applied to one of the topics

for discussion, he would write the reflection down. Regarding teaching and learning,

Henry expressed the following beliefs:

1. The purpose of schooling is to teach students how to learn, and to encourage

   lifelong learning. Henry believed that, even as adults, we have to keep

   learning.

2. For students, school is significant for learning how to work to become

   productive and successful adults, learning how to interact with other people

   and nurture healthy relationships, and developing a good work ethic and

   responsibility. "You learn it now, you're going to know it later."

3. To learn is to think, observe, and then create:

   > For any project that we do, the first thing you do is to think about what
   >
   > you're going to do, how you're going to do it, and how you're going to
   >
   > behave while you're in here working. Step two is to observe the things

around you, observe other people's work, and other people's words. Then,

step three is to create. If they can learn these three steps in my class, then

that's something they can take for the future: to think, observe, and then

do.

Henry believed that "learning is growing," and that to learn is "to be able to

do for yourself."

4. To teach is to share your knowledge, your passion, and your enthusiasm.

Henry believed that you should share "what you know, what you have, and

who and what you are." A teacher is someone who teaches positive things "to

open eyes…to open and expand a young person's mind."

5. The teacher's role is to provide knowledge, materials, time, effort, and energy

to encourage students to discover their passion, "that one thing," and to teach

students things that will be helpful for their futures. A teacher should inspire

students through the teacher's own enthusiasm, and even though a teacher

cannot force a student to commit to learning, Henry believed that you should

always persist in trying to reach each student. "That's the thing," he said, "you

don't stop trying."

6. The student's role is to come to school prepared to learn and be committed to

learning. "You can lead a person to knowledge, but you can't make them

think."

7. The school curriculum should consist of core and creative subjects so that

students have ample opportunity to find their passion. Henry believed that

students should be "well rounded in everything," even though some of the

learning may not apply to their future endeavors. What should be taught is "how to learn," and how to find information that you need or want. "You teach the subjects, and through the subjects you teach [students] how to learn."

8. What should be assessed through "simple, careful, daily observations," are things more important than the final product: "the process, the work ethic, the behaviors, the interaction with your peers, because that's something you're going to take on with you later in life." Henry believed that "if the process is in line," the "product is going to take care of itself."

9. The ideal school would be a safe environment that "promotes learning in a challenging and productive manner." Students would be supported in finding their paths for the future and in becoming productive citizens. The school culture would be positive and encouraging.

Elena's Platform

Elena shared that she had never created, nor heard of, a teaching platform before, and that the platform questions caused her to think deeply about her teaching: "I did think about what I did in the classroom. I just thought about my job and what I do daily, and so it prompted thinking about how I have lived my life the last twelve years of my teaching." Elena thought the questions were difficult, and she did not want to provide me with "cookie-cutter" answers. "I don't want to make this easy…I want to make this truthful." She asked herself reflective questions such as, "Is that what I do, or is that just what I have heard it should be?" Most of Elena's reflections regarding the teaching platform topics were prompted by my reminders of our upcoming group meeting, and she

said that she wrote some of the thoughts down because she wanted to "make this concise" and be certain to include the things she felt were most important. Regarding teaching and learning, Elena expressed the following beliefs:

1. The purpose of schooling is to teach students how to be good citizens and how to behave in various situations, teach content to students, and teach students about social relationships and how to deal with people. Elena believed that these should always be the aims of education, but that the primary purpose of school can change from year to year: "It's just more important this year [for them to learn] how to be a good citizen than it is for them to learn math."

2. School is significant for students because of its social aspects; students can "learn how to act around people." It is also significant because "it makes ideas available to them [to] find out their interest, things they like and dislike for the future things they want to do." Elena did not think that students have ever been asked about their feelings regarding the significance of school, but she believed they would say "to see my friends." Elena added that students would probably also say "to learn, but I don't know if they would know beyond that why they are learning and why that is significant to them."

3. To learn is to "gain knowledge" which means that students "know more when they leave that door than when they came in that door."

4. To teach is to allow students to explore, "like to question and discover…on their own." Effective teaching also entails providing students with the repetition they need and feedback regarding their mistakes and their grades.

5. The role of the teacher is to create a safe environment where students are "able to take a deep breath and relax…a safe place for them to ask questions and to learn what relationships are"; be a resource, facilitator, guide, and role model for student learning; teach students how to be persistent in problem solving; and be an instructor because "these are the kids that it's hard just to facilitate their learning. They don't know enough to be able to be guided, to explore, or to question things." Elena also believed that a teacher should make lessons "as fun as possible" because students are then "more apt to learn it."

6. The role of the student is to be eager. "They don't have to be smart. I don't care. I can work with that. I just want somebody that's here to learn. The role of a kid is to come to school and want to learn."

7. The school curriculum should consist of subject content necessary for survival "out in the real world," as well as skills for solving problems and thinking logically. Elena admitted that she found this topic especially difficult to answer.

> My easy answer is, "What would make them survive out in the real world," but at the same time, when I say something about Pythagorean Theorem to a high schooler and they don't know anything, I'm like, "They aren't very bright, are they?", but tell me how many times you've used Pythagorean Theorem?

Elena was unsure how logic could be taught, though she believed it should be, and she wondered, "How do you teach [students] to read something and to understand it and to solve a problem? That's hard." Elena also shared that

"these kids don't love to learn," and she felt it may be the curriculum that is the root cause.

8. What should be assessed in school is "the taught curriculum that you're teaching, and persistence," which can be measured through observation. "[Students] look at a problem that they know takes time, and then they don't do it. If they can't find something easy and get an answer, they don't do it."

9. The ideal school would consist of eager students who want to learn. To respond to this topic, Elena shared that she "wasn't thinking about the admin, I wasn't thinking about the building, I wasn't thinking about the classroom, I wasn't thinking about any of that. I was thinking about the students in particular." Elena believed that school should embody a culture of learning where students feel safe, they want to learn, and they are respectful to each other.

Researcher's Commentary

At the conclusion of each teacher's second interview, I asked the teachers to think about and select, during the upcoming few weeks and prior to our first group meeting, a professional development topic to work on for improvement. The topic was to be related to a teaching concern relevant to their current classroom contexts, and the teachers were to be prepared to share their topics, and their reasons for selecting the topics, with the group. I also explained that I would send a copy of their interview transcripts to them along with a summary of their responses for their review. The teaching platform summaries (see Appendix F) that I created were intended to facilitate reflection prior to our group meeting, and discussion during the meeting.

A commonality revealed during the second round of interviews was that each of the teachers believed that it is the students' responsibility to come to school ready and wanting to learn. According to Lilian and Elena, however, who were both math teachers, their school in general was not focused on student learning per se, but rather on the state-mandated test, passing, and grades. Elena said that "grades are what [the students] know to ask for in terms of feedback." The impact of this approach, Elena continued, is that students have not "learned some of these things that you should learn to be a successful person."

Understanding that time was an issue for the teachers, I made the decision to summarize these lengthy interviews about the teachers' beliefs into one-page summaries. Though the summaries did keep the teachers from having to sort through their entire interviews themselves, I made certain it was clear to the participants that the summaries were my interpretations of their responses. I also provided the teachers with copies of the interview transcripts in their entirety to support the teachers' review and revision, as necessary, of the platform summaries. The summaries facilitated reflection for the teachers prior to the group meeting, generated conversation at the meeting, and were useful to the teachers as they made future comparisons between their beliefs and behaviors. The teachers' review of the summaries also provided me with important information about the accuracy of my interpretations. The next section provides information about the first group meeting, where the teachers shared their platforms and professional development topics with each other.

The First Group Meeting

The agenda for our first group meeting (see Appendix D) included discussion of the meeting's purpose and goals, the sharing of each individual teacher's teaching

platform, and an explanation from each teacher of the topic chosen for his/her teacher research project. Prior to the meeting, the teachers were given a summary of their teaching platforms, at the bottom of which were "mottos" personalized for each teacher. The teachers were asked to review the summaries, a compilation of my interpretations of our interviews, and note any changes they felt were necessary to accurately reflect their beliefs about teaching and learning. I also asked that they reflect on their respective motto and be ready to share why or why not that brief statement captured their most strong-held beliefs about school. To facilitate the teachers' reflection on and organization of a research topic, prior to the group meeting I provided them with a "prompt" page (see Appendix G), titled Professional Development (PD) / Teacher Research (TR), to be considered and then shared during our group discussion of their selected topics.

The Teachers' Reflections on Their Teaching Platforms

Lilian felt that her platform summary sufficiently reflected her beliefs about teaching and learning, and that her motto *On Beyond Bubbles* revealed that she "must have talked about the test a lot…how much I don't like it." Lilian believed that the school system defines students by a test, and that if students fail the test, this damages their confidence. "It blows everything out if they fail. They cry; they do. They're devastated, and they feel like they can never do math again…I hear that all the time." Lilian felt strongly that supporting students to build their confidence is a critical role of teachers and schools. "I see a lot of kids who aren't confident in themselves, and they're not eager, and they kind of back off a little bit, but when they see their potential, so to speak, their confidence builds and they become better. I think confidence makes you better."

When Elena asked Lilian how you teach confidence, Lilian clarified that you don't; that you, instead, "build" confidence. Henry added that "you build confidence through mastering the curriculum," and Lilian agreed "absolutely." She also explained that a barrier to building confidence is that students do not want to fail or feel failure. According to Lilian, the school system in general has not promoted mistakes as learning opportunities, but rather as absolute failures, and she shared a recent classroom story that really took her aback:

> I asked a question the other day, and I said, "If you think it's this, stand up, and if you don't think it's that, raise your hand. They all sat like this, and I said, "Why don't you guys…?" "What if we're wrong?", [the students asked]. I said, "It's okay to be wrong; that's how we learn." That made me really sad. The whole class, nobody stood up, nobody raised their hand…they all just looked back at me. I wanted to cry.

Henry said about his teaching platform summary, "Everything is just in line." Regarding his motto *FIND your PASSION and SHARE it!!!*, Henry agreed that this statement represented his overarching philosophy about teaching, but that sometimes things, such as student behavior, prohibit him from acting accordingly. Henry believed that there is a difference between teaching and presenting, and he explained that to present is to strictly follow a lesson plan, whereas to teach is to share. Although teachers at his school were required to organize and post in the classroom a specifically structured "lesson design" to "teach" by the end of the period, Henry was adamant that "no way, not in my class. I write it down on the board, but if we don't get there, we'll get to it tomorrow." Henry said that he understands that teachers of core subjects must adhere to a

certain curriculum so that students can pass a high-stakes test, but not so in art; Henry did not give tests. "I don't want them to fail. I want them to succeed. I know what I want them to take out of my class, and it has nothing to do with [state] standards. I hear these teachers say, 'Oh, if we could just teach what we want to teach.' I do, and I'm glad I do." Henry believed that students' confidence "goes out the window" when they fail a test, and he is grateful for the freedom that he feels he has as an elective teacher.

Elena shared that she smiled when reading the summary of her beliefs about an "ideal school" because she "loved that it was 'eager students who want to learn.' " Elena did not realize that she had often used the word eager during our interview, but expressed "that is exactly what I meant," and she was pleased with her motto *Got EAGERness???* *The Importance of Being Eager*. Although Elena spoke, during the individual interview, of eagerness with respect to students, during the group meeting she added that this philosophy also applies to teachers. "I try really hard to always be positive. In my mind, that's eagerness. Let's be honest, math, a lot of this is boring, but if you have a teacher who's going to sing and dance in front of you, then at least isn't math a little bit more engaging that way?"

Elena believed that a focus on testing causes students to lose confidence which then prevents them from being able to learn from their mistakes. They learn to stop trying because, "unfortunately, they have been shot down in not a very positive way that makes them not want to try." Elena found it refreshing to hear that Henry, who was teaching elective classes, had some of the same issues as she did teaching a math class, specifically regarding lesson plan requirements, and likewise felt that this particular expectation was not congruent with effective teaching practices. This commonality was

news to Elena because she was not in the habit of talking to elective teachers about their classrooms. "I'm just trying to do the best I can with the kids that I have, and it is interesting that even with us with TEKS, and other disciplines without them, we still have the same struggles."

The Teachers' Thoughts about the Study

At the top of the Professional Development/Teacher Research prompt page, I included a quote about action research:

> First person action research/practice skills and methods address the ability of the researcher to foster an inquiring approach to his or her own life, to act awarely and choicefully, and to assess effects in the outside world while acting. First person research practice brings inquiry into more and more of our moments of action – not as outside researchers but in the whole range of everyday activities. (Reason & Bradbury, 2006, p. xxv)

It was this quote that sparked our first conversations directly about the relationship between research and teaching. Each of the teachers had a question regarding the ideas presented in the quote. Lilian asked, "What does that mean 'while acting'?" Elena wondered who "the researcher" was: "Is it you?" she asked me. And, Henry, referring to an "inquiring approach," questioned, "What does that mean?"

Lilian acknowledged that "it is hard when you look at yourself," and that she was "anxious to see if what I believe is actually what I do." Elena expressed a similar sentiment:

> I didn't want to give you in-a-perfect-world answers. I wanted you to be able to take some information that was real and true. Use me as a tool to help others be better, but at the same time, that's kind of hard because I do have to think of me

as a real teacher versus what an ideal teacher is. So, I think those are the things

that I was thinking about when I was answering those [questions]: what I should

be doing and what I want to strive to do isn't necessarily what I do in the

classroom.

Elena added that reflecting on the platform topics was already helping her focus on

achieving better alignment between her teaching behaviors and her teaching beliefs. The

group discussion also prompted Henry to share a discrepancy he had realized in his own

teaching practices: "I don't want to raise my voice. I know I shouldn't raise my voice. I

raise my voice."

Lilian felt positive about the group meetings, expressing to the other group

members, "I'm glad it's us because I get to know about you more." Both Elena and

Henry were in agreement with Lilian about the benefit of meeting together to discuss

teaching beliefs and improvement efforts. "We don't get to talk like this," Elena shared.

"Everything is just so focused on lesson design and content and how you did that lesson,

or data. You know, to be able to pull back from that a little bit and just try to make

yourselves better teachers, we don't get to talk about that stuff ever." Henry agreed by

adding that teachers "kind of feel isolated."

Regarding the use of video recordings during the upcoming classroom

observations, all three participants felt that video would not provide necessary data for

our post-observation discussions, and that it would likely even be a significant distraction

for their students. We decided together that I would record my observations without the

use of video.

Researcher's Commentary

At this point in the study, Elena seemed to feel that the classroom research aspect of the study was a minor source of data in relation to the teaching platform and my observations. She stated, "I'm most interested to see if my platform is what you see because I feel like the actual…like the research that I'm doing will be just a little part of what will be in the classroom." I marked this as a point of interest to further explore as data continued to be collected. Though my urge was to reiterate the fundamental necessity of the teacher research to this study of teacher reflection, I purposely did not offer, in response to Elena's comment, my perspective on the relationship between the teacher research and the teaching platforms because I wanted to see how Elena would continue to experience these two reflective processes without that particular influence from me.

A theme that began to emerge during this group meeting, as the teachers explained and discussed their self-selected action research topics, was that the teachers believed they were trying to solve complex problems over which they had only some control, making it often very difficult to find solutions. Elena wished there were simple answers but expressed that "there are just so many moving parts to these issues," and Henry agreed that "we don't have control over those parts." Although Elena did believe the problems were complicated, she also acknowledged that maybe she just has not been able to conceive of that "one thing that we can do." Lilian reminded the group that "we're not in a perfect world" but each time we try to find a solution, we are creating an opportunity to move forward. Henry concurred, "You get that gear going and then the other gears will start spinning."

When I first initiated a discussion with the group about action research, I did so by highlighting for the teachers the three key ideas presented in the action research quote: a) fostering an inquiring approach to life, b) acting awarely and choicefully, and c) assessing effects while acting. As the teachers asked questions in an effort to clarify their understanding of action research, I responded with the following message:

> What is the impact of your teaching decisions? You are the researcher, and action research requires a conscious look at an identified and addressable problem, and then "awarely and choicefully" problem solving about how to make it better. And, while taking action, you continuously assess the impact of your decisions. This is an active and reflective process.

It was in light of this discussion that the teachers then shared their selected classroom research topics and their initial thoughts for improvement.

Teacher Research Topics and Initial Implementation Plans

To facilitate the teachers' selection of classroom research topics, I provided them with the Professional Development/Teacher Research page (see Appendix G) which included the aforementioned quote about action research, as well as the following questions:

1. What are some of your current teaching concerns that are specific to your classroom instruction, environment, or other?

2. What topic would you most like to focus on for improvement right now? Why?

3. What data do you have, or do you need to gather, in order to plan for improvement in your selected topic?

4. What questions, if any, do you have about these questions, and what support do you need, if any, to answer them?

The teachers were asked to reflect on these questions and share their thoughts at our first group meeting.

Lilian's topic. Lilian wanted to increase student engagement, and she selected this topic based on the district's expectation for teachers to have students "in this power zone 80% of the time," and based on her own self-reflection that "sometimes I do lecture more than I should…I feel like [the students] are bored, and like I need to do something different, so I'm looking to help that along." Lilian was not exactly sure what the district meant by "everything has to be meaningful," but she was certain that "it's very exhausting to have them engage…three periods a day, ninety minutes each." Lilian was also not sure why it is such "hard work to get [the students] to stay engaged. I don't know if it's my teaching, or their age, or the content." Lilian's sources of data for assessing student engagement included her observations of the students' body language and their classroom conversations. "When they see me coming, they start talking about the question [I have asked]; otherwise, they're socializing." While reflecting on how to improve in this area, Lilian shared that she should take more time to design her lessons and "write down questions [beforehand] that I'm going to ask them to discuss." Beyond that, Lilian was not sure how to proceed. "I don't really know where to go. I'm at a loss there. I don't know." When asked if she would be interested in suggestions, Lilian announced, "Absolutely!"

Henry's topic. Henry wanted to figure out how to "motivate the unmotivated student." This was not an issue in Henry's art classes; in fact, he said, "[The students] are

great there." Instead, Henry wanted to focus on the last period of the day which was called Enrichment, and he described it as a study hall. He was concerned with the students who were failing some of their classes, yet they would come to his study hall with nothing to work on. "How do I get those students to work? What do I say or do to motivate them to want to learn? I don't know." He believed that though you can try to motivate students, "you can't make them learn," and he shared that he is a good example that "it has nothing to do with being poor. You have to want to learn." Henry shared that it was just a handful of students in the class who were not motivated, but that it was a very stressful situation for him. One day a student told him that he needed to relax, and Henry replied, "I will relax when you bring your work to class. I will be the most relaxed person in the world. I might even fall asleep. When you do what you're supposed to do, I will relax." A few days later, near the end of an enrichment period where everyone was working, Henry approached this same student and asked, "Did you see how relaxed I was?" The student just smiled, and Henry knew, "She got it." When asked how he planned to begin his student motivation improvement effort, Henry stated, "I need help."

Elena's topic. Elena wanted to work on developing a better evaluation system for formatively assessing her students' learning. "I think I personally need better data points to know where my kids are so that I can drive what I need to do next to help my kids learn." She explained that the math department was previously accustomed to doing daily quizzes and that "maybe I need to bring that back." Elena also expressed concern over the district's focus on group work, and the perceived pressure to veer away from independent practice for students. "They need independent practice somewhere. It's a meaningful activity for the students and for me to be able to get an evaluation of what they know."

Elena envisioned teaching a lesson and then having an assessment tool that would provide her with data to "then do a little mini-teach" as necessary. Elena shared how upsetting it was to her when, as she had reviewed test questions with her students earlier that day, "half of the kids [said], 'Oh, I knew that one…Oh, I didn't read that one right.' So, that's what I need help with is I need a better evaluation technique to help me." Elena did express concern, however, regarding whether or not her topic of assessment was an area of focus about which she could actually "make a difference," and this concerned Elena because she wanted the work to be meaningful for her as well as for my research.

Researcher's Commentary

At the conclusion of the group meeting, I explained to the teachers that they would soon receive communication from me about scheduling the first round of classroom observations, during which I would document everything that I observed related to their action research topics. A commonality revealed during the teachers' sharing of their research topics was that they were each unsure, to varying degrees, of the data and support they needed to plan for improvement, and how to proceed with implementation. Each teacher also had a common, expressed desire for help. In the next section, I share the data collected during the first round of classroom observations, as well as details about the accompanying post-observation conferrals.

First Round of Classroom Observations and Post-Observation Conferrals

Classroom observations were conducted between group meetings. If the teachers wanted me to observe something specific about their selected classroom research topics, they were to let me know. Otherwise, I used the open-ended narrative technique to describe all that was relevant to their topic. Originally, I was going to conduct pre-observation conferrals with each teacher; however, time was a real factor for them, so we

instead communicated about the upcoming observations at the group meetings and by email. Each teacher had two observations during the study, and each observation was followed by a post-observation conferral which occurred as soon after the classroom observation as the teachers' schedules would allow. Prior to each conferral, I reviewed my observation notes and organized them into legible documents to provide to the teachers for their review and to facilitate discussion during the conferral. The purpose of these meetings was to discuss with each teacher, using the data from their respective observations, the relationship among their teaching behaviors, teaching platforms, and improvement plans. We accomplished this by collaboratively interpreting the observation data and discussing the status of their action research projects, while reflecting on and making connections to their teaching platforms when relevant.

Lilian and Student Engagement

Lilian's action research focused on student engagement in her math classes: "This seems to be the goal of the district. I also think it could have a positive impact on my teaching practice." In planning for improvement in this area, Lilian's original ideas included researching best practices regarding student engagement, assessing her questioning strategies, promoting deeper student understanding, and facilitating more effective peer interactions. Lilian believed it was critical to make the math content meaningful to the students, and she felt this was sometimes difficult to do. "The students are engaged, and I'm exhausted," Lilian said. "Perhaps, I should reevaluate my approach." For Lilian's observation, during which she did a lesson on probability, I focused on teacher and student behaviors by documenting all of Lilian's teaching decisions as well as the students' responses to those decisions. My goal was to obtain

data on instances of student engagement, or the lack thereof, in order to then share this data with Lilian.

During my visit to Lilian's classroom, I observed Lilian greeting each student at the door with a handshake. I also noticed that Lilian had a learning objective posted on the board, which she did not discuss with the class. Lilian addressed almost all of the students by name during that period, used various forms of praise to acknowledge correct answers and effort, and employed multiple questioning techniques to elicit responses from the students. Lilian's lesson structure included a warm-up, a review of homework, a game about probability, and partner work to practice applying the concept of probability.

I shared the data with Lilian during our post-observation conferral, and she described several strategies that she routinely employed to encourage student engagement. Although Lilian did not discuss the objective posted on the board with her class on that particular day, she explained that typically she does address the day's objective at the start of class "to make [the students] aware of what we will be doing." Lilian believed, as stated in her teaching platform, that one of the purposes of school was to inspire students to want to learn, and she felt that having awareness of each day's learning goals helps students "to pay attention a little more," and facilitates engagement.

Another of Lilian's engagement strategies was to greet students with a handshake every day at her classroom door. This allowed Lilian to "see what mood they are in, let them know I care, and be prepared for how they are behaving." This was consistent with one of Lilian's beliefs about the role of the teacher: to "love [the students] no matter what." Lilian also addressed students by name, called on students randomly with direct questions, and gave high fives in a purposeful and sparing manner. Regarding high fives,

Lilian said, "You have to earn them." It was evident to me, based on my observations of the students' eagerness for and delight in receiving the high fives, that they understood their significance. Lilian also shared that if she is excited about the students' learning and their efforts, then they get excited with her. "I bring them on my journey." According to Lilian's platform, she believed that school should spark interests for students, and that one role of the teacher is to inspire students. Lilian's observable enthusiasm for her students' learning was consistent with this belief. My observation of Lilian's use of praise, including but certainly not limited to the high five, was also consistent with her platform, affirming her belief that growth is what should be valued most and assessed. Two particular students, at different moments during that class, participated in a positive way that was not typical for them. In each instance, though their level of participation was not on par with the rest of the class, Lilian praised those two students' efforts because she recognized their progress: "The fact that she even answered a question made me very happy, made me very proud, so that's why it won her a high five." "He came in and did all that [which] tells me that he's growing."

When Lilian, in an effort to get her students engaged with the lesson, asked more general questions to the class such as "Does everybody agree with that?" or "Does that seem reasonable?" she was often met with silence, or minimal response at best. However, when Lilian asked specific questions directly to individual students, the students engaged with the questions. Lilian included in her teaching platform that one role of a teacher is to support students in learning their role, and that the students' role is to be responsible and participate. When I asked Lilian about her thoughts regarding the impact on student engagement of asking direct questions versus general questions, she shared that because

the students know they may be called upon with direct questions, and because of Lilian's "I-don't-know-is-not-a-choice" approach, her students tended to be on alert for direct questions. I asked Lilian if she thought there were a way to make the general questions work, and she replied that she "probably should try to avoid asking [those types of questions], and maybe doing thumbs up if you agree, thumbs down if you don't, and sideways if you're not really sure." Lilian acknowledged, though, that students would, even then, often just look around at their classmates to see how everyone else was responding before committing to a position.

Consistent with her platform, Lilian often adjusted her questioning to support student participation. Lilian knew that if students were not able to relate to her questions, they would not participate. Her effort to ask meaningful questions was also consistent with her belief that curriculum should consist of content relevant to students' interests, and be applicable to their lives. The other type of questioning that Lilian utilized was to ask specific questions to the class as a whole. Though this type of question often resulted in multiple students blurting out answers, Lilian believed this was an effective way for students to build confidence, which she believed to be one of the purposes of school. For those students who were reluctant to speak out in a large group, "it's a confidence builder for them to say it, and they know they got it right." To further encourage participation, Lilian stressed to her students that "it's okay to be wrong; we learn from our mistakes."

The discussions with Lilian led me to inquire further about her belief that teachers should support students in learning their own role, and she shared the following:

I want them to participate in my class and be responsible and explain things to me so that I can see if they're getting it or not. Their role is to learn what I'm teaching

108

them, but in a positive and engaging way. I want them to participate and not be

lumps on a log. Because when they get in the workforce, you can't just go to work

and just sit there. Your boss is going to ask you things, and you're going to have

to be able to explain. So, I want them to talk to me, I want them to participate, I

want them to want to learn. And, so, when I ask them questions and they're

looking at me like I've got six heads, then I need to change my question because

it doesn't mean anything to them. So, my job is to make it meaningful, and their

job is to participate.

Lilian explained that keeping the students engaged can be exhausting. I noticed this

during my observation, and I thought, "When she's got them and they're there, look what

it takes to get that."

During our conferral, Lilian shared several reflections about her teaching practice.

First, she realized that though she believes she should call on all of the students, there

were a couple of students, as evidenced in the data, who were not often called on to

participate. "I'm always unaware that I'm not calling her, so that's going to make

me…I'm aware now. That's a good thing." For the most part, however, Lilian did address

each of the students by name. In fact, just by observing Lilian's class, and without any

prior input from Lilian, I was able to complete a seating chart with the names of 18 of her

21 students. I shared this with Lilian and she expressed a sense of having received

validation as well as increased mindfulness about this particular teaching behavior. She

felt confirmed that she was supporting students with teaching practices such as giving

high fives and calling them by name, and she believed that an example of a missed

opportunity to provide support to students was not acknowledging a student when he/she

contributes. "I wasn't acknowledging everybody, and I need to." Lilian expressed that the observation and post-observation conferral process made her aware "of things that I need to work on, and things that I did well."

For the second classroom observation, Lilian wanted to focus on whether or not she was calling on every student and how often each student was encouraged to participate. She explained, "I don't want people to be left out." Regarding the study and reflections, Lilian said she thinks about her topic of student engagement every day and is constantly looking on Pinterest or Planet Teacher for ideas. About the written reflections, Lilian shared, "I did them because you asked me to and because I think it's going to help me be a better teacher if I reflect on what works, what didn't, and what I should try next. That's what I'm writing." At this point in the study, Lilian's teaching was mostly consistent with her platform, and she was moving forward with her action plan.

Henry and Student Motivation

For Henry's action research project, he had elected to work on student motivation in his enrichment class, a class Henry described as a "study hall." Previously, Henry had shared that there were more than a handful of students in that class who did not bring their work to class ("there's always an excuse"), and these students were typically noncompliant and/or disruptive. These students were also failing one or more of their core classes. For my observation of Henry's enrichment class, I mainly focused on how he interacted with his students, and I documented everything that I heard him say to the students. I also noted where he physically spent his time during class as well as how the students were behaving, specifically whether or not they seemed to be on task. I took detailed notes on these particular aspects of Henry's class to be able to later discuss with

him some of the teaching decisions that I observed, and begin a dialogue about those decisions in relation to his research topic of student motivation and his teaching platform.

During my visit to Henry's classroom, I noticed that there were learning objectives written on the board for Henry's art classes but not for his enrichment class. I also observed that when Henry commented to students about their work or their effort, he generally used comments such as "good" and "very good," and once used more specific language: "This is nice, this quick write." Other language that I heard from Henry in his communication with the students included statements such as "sit down," "we're not here to talk," "three times I've told you," and "stop it." I also observed that Henry spent most of his time with two individual students. He periodically walked by each of the classroom tables, and then he almost always returned to those same two students. The students overall were quiet and often appeared to be working. There was, however, significant off-task behavior occurring off and on throughout the period; for example, there were students getting out of their seat for various, seemingly unnecessary, reasons, and students talking to a tablemate or communicating across the room with gestures. I shared the observation data with Henry at our post-observation conferral and gave him a chance to peruse it before we began our discussion.

My first question to Henry was about his decision to not have an objective posted on the board. He explained,

Well, the objective is the expectation which remains the same all year long. We work on homework, we read preferably a library book, and we study for exams. That is the purpose of my enrichment class. That's it. Homework, reading, study

for tests or exams or quizzes. Like a study hall. That's it. That's the expectation

for my enrichment class all year.

Henry said that this school-wide expectation had been shared with the students. However, according to Henry's teaching platform, he believed that the curricular focus should always be on teaching students how to think and how to learn. I saw this as an inconsistency between Henry's beliefs and his practice, feeling that there could be an expectation for students to do "study hall" work while also pursuing objectives related to thinking and/or learning processes. I also wondered about the impact on student motivation of not having daily learning objectives and explicit long-term learning goals.

Since the data showed that Henry addressed just one student by name during the period, I asked him for his thoughts regarding this teaching behavior. I did not, however, specifically reference the observation note showing that only one student had been addressed by name. Henry replied to my inquiry, "I call them by name." He continued by also mentioning that his school's principal had assigned a book for the teachers to read about using specific praise. It seemed Henry believed that these were important practices and that he was utilizing them, yet the data collected from that one period showed something different. Though the practices of addressing students by name and using specific praise were not directly stated in Henry's teaching platform, they were relevant to his topic of student motivation, as well as to his belief that school should be a place where students learn how to interact with other people and build relationships.

Regarding the students who were not demonstrating self-motivation and were being sent to the office, I asked Henry about the relationship between his response to those students' behaviors and his belief that the role of a teacher is to inspire a

commitment to learning. Henry replied, "Well, unfortunately, they are not demonstrating it anywhere because they are failing two, three, even four classes. So, if I'm failing at doing that apparently so are other teachers, and I don't know if one person can fix that." I then asked about possible solutions, and Henry shared that there needs to be "more help from home because I've talked to these parents. I don't think [the students] are getting any kind of encouragement or help at home. Education is not important to them. It starts at home. It's got to start at home." Henry believed that sometimes there are circumstances such as economics that cause difficulties for families, but that "all of that can be overcome with the willingness to overcome it."

Henry was frustrated that he had to spend most of his class time with the handful of unmotivated students just to be able to maintain an orderly environment for the other students. And, though he felt that sentiment strongly, it was just a small part of his frustration with the students' lack of motivation.

> I feel like a failure when one of my enrichment students is on the failure list. They have the opportunity in my class to do the work to help them, and I can't get them to do that. Oh, yeah, I'm a failure. I feel like I'm a failure. Sure, that frustrates me. It's stressful, and I'm even a little bit angry.

Since Henry stated in his teaching platform that the role of the teacher is to inspire a commitment to learning, it seemed that his greatest frustration was not being able to inspire that commitment with the unmotivated students. It concerned Henry greatly that those students did not see school as an opportunity. "It is stressful for me to have to deal with so many behavior issues, so many kids not taking advantage of the opportunity. 'Here's your future,' and they don't see that. It bothers me." Given that the fundamental

premise of Henry's teaching platform was about helping students to find their passion, Henry struggled emotionally with the reality of unmotivated students, "You've got to have something. Otherwise, you just go through life with nothing. You've got to have something."

I asked Henry to reflect on his teaching platform in relation to the class period which I had visited. Specifically, I wanted him to think about his beliefs that we, as educators, should teach students how to learn, and that the learning environment should be challenging, positive, and encouraging. With that in mind, I encouraged Henry to consider if there were connections that he could make between these particular teaching beliefs and his teaching behaviors in the enrichment class. Henry shared the following:

> Because our enrichment classes are basically a study hall, [the students] need to, for the most part, be self-motivated to come in and work. They have assignments from their other teachers, so I as a teacher need to give them that opportunity to do that in here. But, I'm not giving them the assignment. I'm not giving them the exam. So, the motivation, a lot of it, has to come from the teacher who gave them the assignment, and from themselves. What I'm trying to do in enrichment, first and foremost, is to give them an environment where they can do that work.

According to Henry, as an enrichment teacher, this was his role; it was the "main teacher expectation that I place on myself." Henry described the environment which he tried to create for his enrichment students as "quiet, safe, and orderly," and he shared that a barrier to being able to establish that type of space was the school's inclusion of, into his enrichment class, students who were on the failure list. Henry believed that it would have

made more sense for those students to be in a tutorial class instead. "But, that's not for me to decide," Henry said. "I'll bring it up if they ask me."

Two other barriers to student motivation that Henry discussed as also being beyond his control were a lack of support and encouragement for students from their parents, and a need for school counselors to be focused on providing counsel to students rather than completing managerial tasks for the school. At the time that I visited with Henry, he had made a decision about students' off-task disruptions in class: "Here lately, if you're not part of that [orderly] environment, I'm going to ask you to leave because it's not fair to the 80/85% who want and need this time. It's not fair to them. You need to go somewhere else, not in here."

In response to Henry's comments about barriers to supporting students in becoming self-motivated, I reminded Henry that he had chosen student motivation as his topic to research, and I asked if he had, since we last met, done any thinking about ways to improve student motivation. Henry responded:

> It hasn't improved from those certain few, and it's always the same ones. And, since the last time you were here, the couple of students I was working with the most, the ones who are least motivated, the ones who come in here unprepared the most, they are now on, I guess they're called, behavior contracts, and it's gotten to the point where three of them, on their next referral, will be sent to [the alternative campus].

Henry did not answer my question, and I did not pursue the issue at this time.

For the second classroom observation, Henry was not sure of anything specific that he wanted me to observe, but he said that he would further consider the observation

data I had shared and get back in touch with me soon. Regarding the study and reflections, Henry explained that he had been writing some notes down and would give those to me when we next met.

At this point in the study, Henry's teaching in his enrichment class was mostly inconsistent with his platform. He did, however, remain adamant about wanting to create an effective working environment for the students, and he continually reminded them to bring work to class and to focus on their work, both of which seemed consistent with his belief that one of the purposes of school is for students to learn responsibility. I did not feel, at this time, that Henry was moving forward with his action research plan, but I did believe that he wanted to. My plan was to continue asking reflective questions that would support Henry in making his own connections between his teaching in enrichment class and his platform. I also planned to check back in with Henry after the next group meeting to collaborate about a focus for his second observation, if he had not already decided upon one.

Elena and Assessment of Student Learning

Elena's action research project was about finding better ways to assess student learning in her math classes to ensure "they are learning what I am teaching them." For my first observation of Elena's class, I focused on ways in which she attempted to determine what the students already knew and what they did not understand. I documented everything that Elena said so that when I reviewed my notes I would be able to extract from them the moments when Elena was actually assessing student learning. The goal was to have sufficient data to be able to discuss with Elena particular teaching behaviors that I observed and the impact of those behaviors on assessment.

The lesson I observed was based on the following learning objective: "We will learn to interpret information given in a graph or table, and to make a graph to solve problems." The class period was divided into three main parts: a quiz, working through the day's lesson as a whole group, and independent practice. During my visit to Elena's classroom, I observed the students writing down the day's learning objective while Elena discussed it with them. I noticed that Elena was positive and encouraging with her students. For example, prior to the quiz Elena said to the class, "You guys are great at this stuff. We did this yesterday." I observed that Elena asked many questions during the lesson, most of which were directed to the class as a whole, such as: "What does interpreting mean?", "How do you know…?", "What can you tell about…?", and "And then what happens?" I also noted that Elena said to the students, "We only turn in completed homework." She reminded them that homework was an opportunity for her to see if they know the material, and for that reason, incomplete homework was not helpful and would not be accepted. I shared this data with Elena at our post-observation conferral.

The first question I asked Elena was about the meaning of the word assessment. She explained that the purpose of assessment was to ensure that students are learning what is being taught, and to find out what they do and do not know. She described assessments as being quizzes and tests. Quizzes were typically administered a couple of times a week to provide Elena with information about "what I need to go over or re-teach, or any misconceptions [the students] have over what I taught them, so that we can move on to the next topic." Elena explained that math content builds on itself from day to day and, therefore, it is critical to master each learning goal before moving on to the next

one. This is why Elena chose assessment as her topic of study. She wanted a better system for evaluating her students' learning progress.

Elena's use of quizzes as a tool for formatively assessing student learning was consistent with her belief that, in part, what it means to teach is to provide students with repetition and feedback. Elena also believed that, when a student performed well, quizzes helped "increase [the students'] confidence." However, at the time of my visit, Elena had not utilized quizzes for several weeks due to the upcoming state-mandated testing and all of the preparation for the test. "It's a terrible few weeks," she said. Elena reflected on past years' frustrations when students appeared to know certain things but then did not perform well on the test, and she described this as "a tricky problem." She expressed that maybe she needed to implement different assessments, but she was unsure how to proceed. Regarding support needed to explore the assessment issue, and whether or not she was being provided that support, Elena said, "I don't know," and she shared her frustration about the data collected school wide: "It shows us nothing…not really any trends."

In addition to quizzes and tests, Elena shared that she frequently asked questions in class and tried to create an environment where the students were comfortable asking questions. This was consistent with Elena's belief that one of the teacher's roles is to create a safe environment for learning. Elena expected students to explain their thinking so that she could identify any misunderstandings, and so that other students could have a point of comparison for their own work. "I feel like then they are helping themselves to fill in those gaps." Although Elena felt that she was doing the best she could for her

students, she suggested that maybe she could work on her questioning to ensure that it was more often an open-ended approach.

During the class I observed, almost all of Elena's questions were directed to the class as a whole. With regards to assessment, Elena did not feel that addressing the entire class was an effective way to assess student learning; however, for that particular group of students, considering their behavior and academic ability, Elena was not sure of an alternative. She kept repeating "I don't know" in response to my inquiries about her approach. When it seemed Elena was frustrated with the conversation, I expressed that " 'I don't know' is okay, too," and I reminded her that my inquiries were based on her desire to improve her assessment strategies. In that moment, I felt Elena's frustration transform into a more reflective state. Instead of saying "I don't know," Elena continued by saying, "I don't know how to solve it," and then she tried to explain what that meant to her:

> I'm here to teach these kids and to make sure that they know stuff, but the thing is, I feel like they know things and then they get to the test and they don't know anything. So, I don't know what's happening. Then I just think it's me then. So, then I think maybe I need to do different assessments. I was thinking that maybe that's the disconnect. I don't know if that's the disconnect or not.

Elena explained that, over the years, she had become much less tolerant of unproductive student behaviors, evolving from "Let me see what I can do, bend over backwards, [to] I have no patience for you anymore." Elena cared greatly about her students' success, but was tired of the discipline issues and lack of self-motivation. She had come to believe that student learning had little to do with the teacher, and

"everything to do with how [the students] walk into the classroom." For Elena, assessment of learning was such a difficult topic because "it is a moving target. Because of who I teach, I can give them a test tomorrow and they ace it, and the next day they fail it, and the next day they ace it. So, that's my problem," Elena shared, "I don't know what it is." Elena explained that she cared about the students and she wanted to be able to do something to help them, but "I always work my way back to one thing being the problem, and it's the community. It's the parents' caring…it's there's no support there. And, I know that sounds terrible."

For the second classroom observation, Elena reflected once more on her questioning strategies as a possible focus: "Questioning, of course, is a great way for me to make sure they are learning what they are supposed to be learning. So, maybe my questioning…making sure that it's open-ended, and it's not yes/no, and that it's, I don't know, I ask a lot of yes and no questions." Elena continued to express uncertainty about how to tackle the assessment problem. "Am I doing the best I can for my kids? I don't know. I don't know what to ask because I don't know what's out there."

At this point in the study, there were not many connections to be made between Elena's teaching and her teaching platform. Elena said that she wanted to work on assessment, but she often implied that she was not sure if that was actually the problem. With that said, it was also not clear to me at this point whether or not Elena was moving forward with her action research. My plan was to review the transcript of our post-observation conferral, and then address these uncertainties with Elena at our next group meeting.

Researcher's Commentary

Prior to the classroom observations, I met twice with each teacher individually and we had one group meeting. The classroom observations were my first look at their actual teaching environments and behaviors, and I found myself keenly aware that there were many factors impacting their work, such as the school culture, administrative expectations and directives, and state requirements. Throughout the study, I remained conscious of the teachers' time constraints and the fact that I was, for almost all intents and purposes, an outsider to their work world. Plainly put, I was "extra" work for them. Though this study was as much about their professional development as it was my research, it still required time from the teachers beyond their contractual work responsibilities. As I observed their classrooms, I thought of this, and it helped me stay focused on their goals and needs. This study was about their learning, so I made sure that I recorded descriptions of what I observed in their classrooms, rather than judgments. And, during the post-observation conferrals, I asked for their interpretations of the data and their thoughts about the relationship between their own teaching behaviors and beliefs. My role was to facilitate the direction of our work together, not to dictate, in any way, the product. In the next section, I describe the second group meeting and share details about the teachers' progress with their action research projects.

The Second Group Meeting and Teacher Research Implementation Updates

The agenda for our second group meeting (see Appendix E) included a group discussion about action research, and an update from each of the teachers on his/her action research project, including the current status of implementation and next steps. This group meeting began with a discussion of Nolan and Hoover's (2011) description of action research as a process of teachers asking well-defined questions about their

teaching practices, gathering and interpreting data in a systematic way to answer those research questions, and then using that data to improve their practice. I selected this particular description to share because it seemed to capture, in three concise statements, the action research process about which I wanted the participants to reflect. The teachers were asked to consider their thoughts about teaching and learning, their professional contexts, and this study about reflection and teacher learning, in relation to Nolan and Hoover's explanation of action research. To summarize, I commented to the group that there were three main actions presented in the text: asking well-defined questions, gathering and interpreting data, and taking action.

Lilian and Student Engagement

Lilian's first thought about our action research discussion was that "those are all the things you need to do to solve the problem: Ask the question, gather and interpret the data, and take action." She felt that problem solving was synonymous with action research, and she likened it to formulating and testing a hypothesis in science. Regarding the role this played in teaching, Lilian explained, "We have to figure out what our students' strengths and weaknesses are. How do we want to teach it? What's going to work? And, then design it."

Lilian reminded us that she chose her topic of student engagement because "the district has mandated a new lesson design and they want to see our students engaged not one-hundred percent of the time, but about eighty [percent]." She explained with frustration that her understanding of the mandate was that the term *engagement* referred to meaningful, hands-on activities, such as the roll-the-dice game in which she had the students partake during my observation of her class. Lilian said that "to do that eighty percent of the class period is exhausting." Lilian also reminded us that she had some

students who were not concerned with their progress reports, and she wanted to figure out ways to increase those students' engagement, along with enhancing the level of engagement for all of her students.

To improve student engagement, Lilian shared that she had been implementing different strategies such as jigsaw, and supporting the students to each briefly assume the role of teacher. She noticed that the students' ability to ask thoughtful questions was improving. Instead of simply saying, "I don't get it," the students started saying, "I don't understand," and then attempted to describe the specific learning objective with which they were struggling. Lilian felt that she had seen growth in her students' confidence, as evidenced by the work they were attempting to do on their own prior to asking for help. Although "a lot of kids come to me not believing in themselves, I can see the light." Lilian did express concern, however, for the substantial school-wide focus on the upcoming state-mandated test. She desired a work environment where teachers are supported to reflect on their work and improve, versus feeling threatened by test results. "We're working scared pretty much," and she felt their school was not a safe environment for asking questions. Lilian also sensed the stress that many of her students were experiencing in anticipation of the test, and worried about how she would keep them engaged afterwards. "As soon as we take the test, our students feel they're done, and then they really don't want to do anything. So, I told them, 'We're not done. I need to get you ready for high school.' "

Lilian planned to begin "researching and talking to colleagues about how to keep [the students'] attention for the next nine weeks." As a long-term, district-wide effort to improve student engagement, Lilian was interested in the impact that the new Engaged to

Learn initiative, a project-based curriculum, would have starting the next school year. She was scheduled to attend training during the upcoming summer as one of the teachers who would pilot the program for the school district. When Lilian finished sharing her implementation update, and I asked if the other participants had any feedback or suggestions for Lilian regarding her research topic, Lilian was dismissive of positive, yet general and vague, feedback such as, "That's great. You're awesome." Instead, she desired specific, constructive feedback, and replied to those comments with, "Whatever. Give me something."

Henry and Student Motivation

Henry described action research as "researching to solve a problem." He further expressed,

> When I hear *action research* I think, because it's always different, everybody is different, there's always action, and it's not the same action…It's an ongoing, changing solution through research, through looking, observation, doing, or whatever. There's always changing. That's the action part: it's always changing.

Henry stated that research is mainly the act of observing the happenings in class; yet, our discussion prompted him to describe strategies he had recently employed in his enrichment class to try to improve student motivation. Henry's list of strategies included some positive reinforcements such as earning a free Friday, and some negative reinforcements such as taking away an extracurricular activity. So far, Henry had observed minimal progress, if any at all. He felt that he had moved "one step forward and two steps back," and he explained that he had not yet found any effective solutions.

Henry's frustration with the students' discipline issues continued, and office referrals were not working as a deterrent or as a motivator to behave. Henry felt that he was "fighting a battle," especially when he would hear that other teachers were not holding their enrichment students accountable for studying and were instead watching movies or playing outside. He remained unsure of how to improve the situation. "I don't know what to do to get them motivated. I don't know what to do." It was only in Henry's enrichment class, not in his art classes, that he experienced this lack of motivation from his students, and it weighed heavily on his conscience. "My job is my responsibility, but I feel like I'm not meeting my responsibility. If they're failing, I'm failing. They're my kids, my students, and I feel like I should be able to do something." Though Henry felt responsible, he did not feel that the responsibility was all his. "It's starting at home, so it's not just me."

To continue trying to improve student motivation, Henry shared that his next step would be to communicate with the parents of the unmotivated students.

> First thing I'm going to do starting tomorrow is start calling home [to] each one of these students I feel can do better, which is really all of them. We have nine weeks left, we've got a big test coming up, so that's what I'm wanting to do, first and foremost, make some calls home. And, like I said, it's not just me, so maybe parents can help. And, I should have done that earlier, but you know what, though? I mean it's not the first time they're on that failure list, I'm sure. They're coming from Rebound; it's not like the parents don't know.

The other teacher participants in the group shared that they did not feel there was anything else that Henry could add to his list of strategies to improve student motivation,

and they offered that he should "stay the course." Henry insisted that he did not know what to do and that, although he did not feel he was reaching the students, he would keep trying.

Elena and Assessment of Student Learning

In response to the information I shared regarding action research, Elena explained, "I just feel like I can't get well-defined questions, [and]…that is kind of the beginning. That's where we have to start." This discussion of action research led Elena to question whether or not it was even possible to formulate a well-defined question suitable to her topic of assessment. She explained that, since there are so many different ways to facilitate student learning, she was still unsure of her research question. "When I say assessment, what do I really mean?" Although Elena believed there was value in asking this type of reflective question, she felt "like I'm spinning my wheels," and she made a conscious effort to try to define her topic. Elena also shared her realization that the math department had stopped administering quizzes on a regular basis. As a result, Elena had just recently "brought those back a little bit, [and it] made me feel better."

Regarding the current school environment, Elena expressed concern about receiving the test results and the potential "backlash" if her students did not perform well. She knew that the test was not her reason for teaching, but she had not been able to stop thinking about it for weeks. She felt significant pressure that seemed contrary to the type of professional support she desired. "Rachel, when you ask those questions, those reflection questions, I feel like the reason you're asking them is to get us to reflect and be better. I feel like if those questions are asked here [at school], it's not to make us better, [but] to prove that you didn't do enough." Regarding our group meetings and the

126

atmosphere of reflective sharing and discussion, Elena expressed, "This is so great. I love this."

In an effort to improve her system of assessment of student learning, Elena decided, as the department chair, that the math teachers would work together to give quizzes to the students more often than they had been lately.

> This is going to be proof. It will be my data. It will be our data that will drive our instruction and make sure they learn. I actually feel like that will also keep the kids on track so we can do this fun and engaging activity, [and] then they're still responsible for the learning.

Elena believed that there could be strength in collaboration, and that the teachers' combined efforts would result in "one super teacher power." Lilian agreed, and together they asked Henry if he would join their "super heroes." Henry responded, "I'll wear my cape."

Researcher's Commentary

When Elena expressed that maybe it was not possible to have a well-defined question for her topic, I felt that Elena needed an alternate view of well-defined research questions in order to create one for her own topic. I also knew that I had a choice: I could tell Elena this directly and create a research question with her, or I could observe and listen to Elena as the study progressed, and continue to ask reflective questions, to see what she would come to realize without that direct intervention. I chose the latter option for two reasons. That approach represented my understanding of the working relationship that I had with Elena at that time. I felt that she needed me to be more of a listener than an instructor, and that she was feeling somewhat overwhelmed with work pressures. That approach also was aligned with the intent and purpose of the study: to discover how

127

teachers learn and work to improve their practice when they reflect on their own behaviors and beliefs. Through this process, Elena was realizing that she did not have a clearly-defined topic, and that having one was critical for her to move forward.

At the end of the group meeting, in an effort to promote further reflection about action research, I shared Corey's (1953) explanation of action research: a process of gathering evidence of one's teaching effectiveness and modifying practices in light of that evidence. Based on our discussions, I believed it was necessary to continue providing additional information to the participants about the purpose and process of conducting action research.

During the discussion of their school environment, Henry remained mostly silent while Lilian and Elena shared concerns about the upcoming state test and possible repercussions. At the end of the conversation, though, Henry expressed, "I would hate to be in that kind of pressure." Unlike Lilian and Elena, Henry taught a subject that was not tested by the state.

Regarding written reflections, as the study progressed, my language and expectations changed. Up until this time, I had asked that the participants do weekly written reflections comparing their action research teaching behaviors with their teaching beliefs. However, not only were the teachers not doing written reflections on a weekly basis, it appeared that just the idea of having that as a requirement was causing stress for them. At one point, Elena sent me an email that said, "I'm drowning." If the teachers did not have any reflections written, even if I just casually inquired, my inquiry seemed to cause them discomfort. This was not the intention, and it was not a productive way to operate, so I began to refer to the written reflections as a voluntary endeavor for the

teachers to engage in as they felt it would help them to progress with their action research. In the email that I sent prior to this second group meeting, I asked the teachers to "please bring any reflections that you may have written since our last meeting." And, in an email following the group meeting, I wrote, "Please continue to reflect in writing as it feels relevant to you and is helpful for you to do so." Throughout the study, the teachers continued to reflect orally about their improvement projects and their teaching beliefs in group meetings and during individual conferrals and interviews. With my research question always in mind, I understood that I needed to adjust to the teachers' needs or risk losing them as participants. The next section provides details about the second round of observations and the conferrals that followed.

Second Round of Classroom Observations and Post-Observation Conferrals

This round of classroom observations was conducted between the second and final group meetings. During the previous post-observation conferrals, I had asked the teachers to consider a focus for this last round of observations, and if a teacher did not specify a focus, I again used the open-ended narrative technique to describe my observations related to the teacher's selected topic. I also again then organized those notes into a document for us to reference together during the conferral. The goal for our meetings was to continue examining the relationship among each teacher's teaching behaviors, platform, and improvement plan.

Lilian and Student Engagement

For Lilian's second observation, during which she did a lesson on budgeting, I focused on the types of questions that Lilian asked to her students, and I tracked the questions on a seating chart to document which students received each question. I also noted the type of responses that the questions elicited from students. To work on her topic

129

of student engagement, Lilian was interested in whether or not her questions were engaging the students, and how much she was including each of the students in the process. As I observed the class, I noted that several different types of questions were being asked by Lilian, and I created labels for them. Sometimes a question was a combination of types. I also noted and labeled the students' responses as well.

During my visit to Lilian's classroom, I saw the following learning objective for that day posted on the board: We will calculate and analyze monthly expenses within a salary. I observed that Lilian interacted with each student at least once, many students several times, and two particular students significantly more than others. The questions she most often asked the students were connected to their personal lives, and sometimes these led to other types of questions. Examples included: "Does your family have to stay on a budget?", "Are you aware of bills your family has to pay?", and "Do your parents ride a bike? So, they drive a car? What expenses go with a car?" I also observed Lilian in numerous other personal moments with students, such as when she reminded them to "believe in yourselves"; sang "I can see clearly now…" to a student when he learned how to adjust the brightness on his computer screen; told a student, "I love that about you"; and visited privately with a student who was crying, comforting her as they stepped outside of the classroom for a moment, and encouraging her to take a breath.

I shared the observation data with Lilian during our post-observation conferral. According to her platform, Lilian believed that curriculum should include inspiring students to be interested in finding information, and discovering students' interests and going into depth to support student learning about those interests. Lilian's teaching behaviors were congruent with those beliefs in that she facilitated the students' use of

technology to find information to prepare a budget, and she engaged the students' interests by supporting them to make connections between the assignment and their own lives.

When I asked Lilian about her minilessons, she realized a discrepancy between her teaching beliefs and behaviors. I had asked Lilian what she thought the level of student engagement would be during a minilesson that was part of a project, versus a minilesson that was part of a non-project-based lesson, and she said, "They probably look the same." I then asked if she thought they looked the same to the students, and Lilian reflected aloud:

> I think it feels the same to them except the end product is going to be different, which I need to change that because, now that I'm talking to you, that sucks for them. Like, the project is their end product so they're actually using what I'm telling them. Whereas, in class, we're teaching what we're going to do, but there's nothing to use it for in the end.

Lilian realized, though her platform stated that curriculum should be useful and applicable to the students' lives, she was not consistent in employing that belief in her teaching practice. Lilian did add, however, that "it's hard to make everything useful if you're not going to use it in real life."

Another belief reflected in Lilian's platform was that one role of a teacher is to love the students. One of the ways that belief manifested itself in Lilian's classroom was when she facilitated student engagement through care. Her personal questions to students sparked their interests and promoted engagement with the lesson. She also often supported the students personally. I shared with Lilian that she seemed to reach the

students in a personal way, and I referenced the moment when she helped a student through an emotional breakdown: "She had to get it off her chest…she would not have been able to [stay engaged otherwise]." Lilian said that the students pay attention to her because they know how much she cares about them. "I love them. I do. I told them I would do anything for them." The many personal questions that Lilian asked her students, and the fact that she interacted with each and every student during a single class period, were examples of the congruence between her efforts to increase student engagement and her beliefs about student learning.

I noticed that even though Lilian's questions supported students to engage with the lesson, the questions often promoted personal dialogue that was somewhat removed from the academic learning goal. This observation appeared to not completely align with Lilian's belief that curriculum should connect content and students' interests, and facilitate deep learning. Although Lilian and I did not address this observation directly, we did discuss the idea of depth regarding curriculum, and the pressure teachers feel to get through curriculum quickly because there is so much to "cover." Lilian expressed her concern about the nature of curriculum in American public schools:

> In Japan, they teach fractions for a whole year, nothing but fractions. Everything you do is fractions, fractions until you become masters at it, so you can look at a ruler and tell exactly what fraction that is. But, we don't do that here. We just have little bitty layers, little bitty layers, skim the top. That drives me crazy. There's not depth.

It is important to note that my observation of Lilian's budget project was of just one class period, and the project in its entirety took much longer than that. My understanding was

there were lessons regarding budgets that occurred before and after my scheduled observation.

Throughout our meeting, Lilian shared other teaching concerns as well, such as

- the students in general lacked necessary number sense and technology skills to be able to do grade-level work;

- curricular decisions were sometimes made at the school level without enough time for teachers to thoroughly prepare their lessons;

- students wanted to play rather than work, and they were not turning in assignments;

- some teachers seemed to be supporting a lackadaisical attitude, now that the state test was over, by showing movies in class;

- the computer lab would get booked and be unavailable, making it difficult to finish a project in a timely manner; and

- some of the state-mandated curriculum was not relevant to the students' everyday lives, and therefore, the students did not want to learn about it.

Lilian believed that each of these issues had a significant impact on student engagement, and she insisted that "we've got to make a change somewhere." Lilian did not believe change could happen, though, until everybody stopped playing "the blame game."

Henry and Student Motivation

Henry did not specify a focus for his second classroom observation. When I walked in to observe Henry's class, I asked him again if there was anything specific related to his topic of student motivation that he would like for me to observe, and he indicated that there was not. As with the first observation, I took notes on teacher and

student behaviors, specifically the interactions they had with each other, as well as whether or not the students were on task.

During the classroom visit, I spoke with a student seated at my table, and I asked her, "What is this class?" When she answered, "Enrichment," I asked what that meant, and she explained that "it's a short period, and we do work, worksheets, and word searches." Since the student was currently working on a word search, I asked if that meant that she did not have any other work to do. She said, "Yes." Then, when I asked if that meant that she was doing well in all of her classes, she replied, "I don't know."

I noted that during the first five minutes of class, there were only a few students working, and then at various other times during the class about half of the students, and sometimes all but a few, were working on something. For the final five minutes, the majority of the students seemed restless and were not on task. Almost all of the students, when on task, were working on a word search puzzle, which was Henry's standby activity for students who did not bring work to class, or who finished all of the work they did bring. I also observed Henry tell one student to move to another desk and send one student to the office for misbehavior, and I heard a few comments he made to individual students: "Did you bring something to work on?", "What you don't do in here, you'll do for homework," "There you go!", and "Do you want to go home?"

During our post-observation conferral, I shared the observation data with Henry, and I asked him to recall a conversation, as he had mentioned at our last group meeting, that he had with the students about being motivated to learn. Henry shared that the day before I came in to observe, he had praised the class for a "perfect enrichment class." According to Henry, those days only occurred once every two weeks or so, and he was

grateful for them and would thank the students: "I'll tell [the students] when we have a good enrichment class…and I keep a little stash of hard candy, and I'll say, 'You deserve a little reward today because you did an awesome job. Thank you.' " Henry explained that he also expressed to the students that he did not understand why they did not always behave that way.

I asked Henry if the students had learning goals for enrichment class, and he explained that they are supposed to read, work, or study. According to Henry's platform, to learn is to be able to do for yourself, and one of the purposes of school is to teach students how to learn. Henry also believed that the main curricular focus for school should be on teaching students how to think and learn. The fact that the students did not have learning goals seemed incongruent with Henry's beliefs.

At the previous group meeting, Henry shared a list of strategies that he had been implementing to improve student motivation. I asked him about two of the strategies: speaking to the administration, and talking to the school counselor with a student. Henry explained that when he spoke to an administrator about his concerns with some of his students' lack of motivation, the administrator told him to "write them up." Henry told me, "I write them up, but it's not really a deterrent." He felt that the students believed they had "nothing to lose," and it was this mindset that caused Henry frustration and concern. "I don't know what to do. [Those students] don't want to be here, and I can't help them."

Regarding Henry's visit to the counselor with a student, Henry said that he had done that a couple of times, as well as visiting with other adults such as the ISS (In-School Suspension) teacher, and that "it may work for a little bit, and then they forget."

Henry believed that he had to function as "the bad guy" in order to get students to behave, and that there needed to be someone else consistently reinforcing the same message that he was trying to convey to the students.

Another strategy on Henry's list was to not allow a student to participate in extracurricular activities if the student was not participating appropriately in enrichment class. As an example, Henry sent a student out of class one day for misbehavior and gave him a choice of an office referral or lunch detentions. The student chose three lunch detentions, and according to Henry, "besides that we had a little talk." Henry expressed his expectations to the student and reminded him that "to continue in athletics, you don't behave like this anymore." The student's behavior improved.

Throughout our meeting, Henry shared several concerns that he felt were barriers to improving student motivation. Some of the other enrichment classes appeared to not be adhering to the protocol for enrichment time. When Henry observed another class having a party one day outside of his classroom window, he thought, "No wonder these kids don't want to work." There were also a few students in his class who were leading "in a negative direction," and Henry sensed that nothing was being done about that. Henry also felt that the students should be receiving counseling as a result of being sent to the office, but that was not happening: "Those are the students who need the counselors, but as far as I can tell, they're not getting any."

The most difficult barrier, according to Henry, was that the students were not being held accountable for their work or effort in enrichment class. Henry's class rules indicated that students should sit down in an assigned seat, be quiet, and work. "That's it," he said. At first, Henry was assigning lunch detention to students who were not

following the rules, but he had students in his detention every day during his lunch time, so he decided to stop that practice, and that is when he began to use word searches as an enrichment class activity to keep the students busy.

> So, now the one-third who never bring anything in, all they want to do is the word search, which is fine because at least they are doing something. At least they aren't being disruptive, but these are the same ones who are failing two or three classes. Now, they just got in the habit of, "Can I just do the Word Search?"
>
> "Okay, good, go and sit down and be quiet." It's not much.

Henry expressed concern that "one-third are getting a failing 'grade' for work ethic," but there was no system in place for holding them accountable to do better. According to Henry, there was no grade associated with the enrichment class, and he had "never seen an administrator" come to observe his class. Henry's teaching platform stated that work ethic, rather than a final product, was the most important area to assess in school. Henry's recognition that the students were "failing" in that sense seemed congruent with his belief about the importance of a strong work ethic. On the other hand, Henry did not have his own system for providing feedback on and facilitating improvement in students' work ethic, and this seemed inconsistent with his stated belief.

Though Henry said there were probably other strategies he could have tried, or things he could have done differently, he did not know what those would be, and he seemed to believe that the onus was largely the students': "I said this from the very beginning, and still hold this as the truth – all learning is self-learning. You've got to want to learn. You can't force that on anyone. You can't." This reflection aligned with Henry's belief, as indicated on his platform, that the role of the student is to be committed

to learning. It did not seem aligned, though, with his belief that a role of the teacher is to inspire that commitment to learning.

I asked Henry if there were any resources I could provide for him that would support his desire to improve student motivation. He said that he could not think of anything, and that his next step was to ask an administrator if he could be assigned "a different sort of enrichment class" for the next year, or "if there'd be more accountability from the school for enrichment class." Henry said, "I don't want to go through this again." Henry was in the process of communicating with another teacher about addressing this issue with the school's administration before the end of the school year.

Elena and Assessment of Student Learning

For Elena's second observation, she wanted me to listen for questions she asked to students that were intended to assess student learning, and to note the students' responses to those questions. Elena's lesson for that day was part of an ongoing project called *Spend a Million*. Prior to the start of class, Elena expressed concern that her topic of assessment might be difficult to observe on that particular day because of the lesson she had planned, and that the students had not been listening very well since the state testing had concluded. She added that this might actually be an issue for the remainder of the school year. We decided I would stay to observe, and could come back again if that seemed necessary.

During the classroom visit, I observed Elena ask three different types of assessment questions, and I recorded the students' responses as well. Elena asked questions such as "What is the decimal for 8%?", "Do you see what I mean?", and "How do you figure out the total cost?" She asked questions to ten out of the eighteen students, and half of those questions were open-ended. Slightly over half of the students' responses

were answered correctly, and the remainder of the responses was a mixture of no responsiveness and incorrect answers. During the ninety-minute class, Elena asked nineteen questions. The students spent much of the time on computers, searching for ways to spend their million dollars.

At the post-observation conference, I shared the observation data with Elena. When I asked again about the meaning of "assessment," and whether or not Elena considered her questions to be a type of assessment, she replied, "I don't know if I do. Well, I mean I guess so. It proves to me that they know what I need for them to do. You make me think more of assessment and what it means…I guess I am assessing what they know." Since only nineteen questions were asked, and there was no other apparent type of assessment that occurred during the ninety minute class, I asked Elena to share her thoughts about assessment in relation to projects vs. "regular" class lessons, and if there were learning goals connected to the project. Elena explained that her class would begin working on Algebra soon and that, since they had just finished the state test, the project they had been working on was mostly for fun. Though there were some learning goals associated with the lesson, such as reviewing tax and multiplying decimals, there did not seem to be a plan for assessing student learning of those concepts. Elena felt that she had good conversations with her class, but "it's really hard to put a grade on what they learned from the conversations you have." I asked Elena what caused her to talk about grades:

Grades are due at four o'clock today. So, I think that is so engrained. As a public education teacher, that's what you do. You have to grade them. That's why every

time you talk about assessment, it makes me go, "Oh, I guess that was assessment. I didn't put a grade on it, but that's assessment."

Elena believed that a learning objective, "what you have to know," is directly tied to assessment because "then [the students] are clear on what I'm assessing them on, or what I expect them to know and perform for me, and/or complete for me." There did not appear to be a system for assessing the students' learning of that lesson's content, though, and this was not congruent with Elena's teaching platform which, in part, stated that the taught curriculum should be assessed. Elena's explanation that the project was an opportunity for students to recognize that "math is everywhere," however, did seem congruent with her platform belief that curriculum should consist of content necessary for survival in the "real world."

Elena shared that this reflective process made her think about her topic of assessment and her sense that it was a difficult topic for her to discuss and for me to assess. "I feel like it's difficult for you as I'm struggling with what I mean by better assessments, different assessments, assessing what they're learning," and she expressed that maybe she should have selected something "easier." However,

at the same time, it has made me think about assessing my kiddos a little more

often. I have thought about making sure that these kids are learning what they're

supposed to be learning, and I think it makes me better at giving them stuff, me

looking it over and handing it back to them a little bit more, a little bit quicker, so

then they know what they need to work on.

Elena also felt positive about the experience of participating in this study:

The thing that I like best about this is, honestly, I feel like I don't get a lot of time

talking to people who are educated on my profession. It's been so good for me to

be able to talk to professionals and even realign myself, too. It's been nice for me

to be, like, "Now I've got a purpose. I really do like my job." I need for [this year]

to be over, but it does make me hopeful that there are people out there that are like

you who are wanting to make things better. It has to happen.

As a next step, Elena felt that she really needed to start implementing daily

quizzes again, which she described as quick "two-or-three-question things just to get

them on the right track." She gave an example of asking students to draw a number line

and label a few things just to check their understanding of number lines.

I shared with Elena that I had a small amount of money allocated for instructional

improvement that I could spend on each of the participants, and I asked if there were any

resources or materials she was interested in having to support her effort to improve

assessment of student learning. Elena said that she would think about it and let me know.

Researcher's Commentary

At one point during my post-observation conferral with Elena, she said, "I just

can't untrain [the students] to want to just learn and do and figure things out." This

comment was part of a discussion about grades, and how a grading mentality is

"engrained" in teachers in the public education system. I found myself wondering about

Elena's reflections in relation to the purpose of this study: to explore teacher learning

when teachers are encouraged and supported to take a conscious look at their beliefs.

Elena was analyzing her beliefs about assessment, which she shared she had not done

before, and she was comparing those beliefs to her current teaching practices. I noticed a

similar occurrence with Lilian when she analyzed her beliefs about curriculum and

realized that she needed to find ways to make the math content consistently more meaningful for the students. With Henry, I observed him sharing reflections mostly about his beliefs and his students' behaviors, and less about his teaching practices and the relationship between those practices and beliefs. In the next section, I share the teachers' reflections and future plans they revealed during the third and final group meeting.

The Third and Final Group Meeting

The agenda for our third and final group meeting included an update from each teacher about his/her action research plan and comparisons to his/her teaching platform, as well as each teacher's reflections on the study, specifically the reflective group processes and the written reflections. At the end of this meeting, we scheduled our final individual interviews.

Lilian's Reflections on Her Improvement Plan and Teaching Platform

Lilian updated the group on her topic of student engagement by first sharing that the projects they had recently been doing in class had kept the students engaged because they were fun and they challenged students to demonstrate what they know and understand. She also expressed that the reason teachers were able to do projects with their students was because the test was over: "Now we can do some fun things, some real-life projects." Lilian had observed that the test created pressure for the teachers and the students, and she explained that the students "get nervous and stressed." She believed that high-stakes testing greatly impacts student engagement:

> I try to keep them engaged before the STAAR, but I feel like my hands are tied
> with what I can and cannot do…I don't feel like I do as much as I would like to
> keep them engaged…I want to do more projects where it's meaningful to them…I

want them to make something using Pythagorean Theorem [for example]. Show me that you know how to use it.

Regarding her teaching platform, Lilian determined that, for the most part, her actions were consistent with her beliefs, "and when I close my door, that's what I'm doing…I'm very personal with my students. They know I care about them, and I try to stay true to that." Lilian did recognize, though, that her lack of preparation for the project-based lesson had prevented her from adhering to her core beliefs about curriculum, specifically that the curriculum should go into depth relative to students' interests. Lilian explained that there had been very little time to prepare for the project, and that the teachers were "flying by the seat of our pants." She also reflected that, in the future, she would "think it over more…think about how the students are going to react and what questions are going to come up, and I need to go a little more in-depth before I assign it."

I asked Lilian about her "when I close my door" comment, and whether or not there was significance to that. Her answer was a resounding "Yes!", about which she elaborated:

Maybe we're supposed to be having a closing task, and I might not do that closing task. Something changes and so I have to make the decision to change what we're doing, and I don't know if [the administration] would appreciate that since it's not on a lesson design, but I have to go with the flow of what my students are learning and how it's going, and so if I don't get to that, I don't get to that.

Lilian believed that student engagement is greatly enhanced when students have opportunities to discover their interests and are then supported to build on those interests.

Her approach to instruction, with her willingness to be flexible with a lesson design, seemed congruent with that belief.

Henry's Reflections on His Improvement Plan and Teaching Platform

Regarding Henry's goal to improve student motivation, he shared that he had seen some positive changes occur in his enrichment class; however, "the most I've been able to do is to lessen, to make less of all that conflict." According to Henry, the changes were primarily due to three specific instances involving four individual students: one student from his class was expelled, which changed the classroom culture in a positive way; a meeting with a student, the student's parent, Henry, and an administrator, which Henry considered to be a negative consequence, brought about positive change for that student; and, two students, who each developed a greater interest in choir and found a passion for that activity, changed their attitudes and behaviors. Regarding the last instance, it seemed that participating in choir became those two students' motivation to do work in enrichment class because they realized that their behavior in class would impact their right to participate in choir.

Henry shared that he had not revisited his teaching platform prior to this group meeting, and when I asked him to think about his beliefs in relation to his teaching decisions regarding student motivation, he responded that "perhaps they're too young to know, or haven't been able to find something that they find interesting and they can be passionate about." Henry thought that maybe a "study hall" was not a conducive setting for students to make discoveries about what interests them.

That's what enrichment is for, not to work on word search pages, which is what the majority of them did for me, and that's not enriching; it's not fun, but that's all

I could do to keep them quiet, and those who wanted to study, read, or do homework were able to do it. I just think they're too young to know what they're passionate about, and studying is not what they're passionate about.

Henry's responses did not specifically address his teaching behaviors or his platform, or the relationship between the two.

Though Henry was not able to actualize all of his beliefs, he still believed that the statements in his teaching platform were an accurate representation of his beliefs, and he expressed a desire for help that he seemed to feel he was not getting. He said to me, "Remember the last time we talked, maybe you can help me…Remember, I asked you?" He wondered why he was not able to improve student motivation: "Is it an age thing? I don't know. Is it our school? Is it me? Do I expect too much? I don't know. But, everything that I said here [in my platform] I still hold true. I just don't know how to make it come about." Henry felt that he had failed, and in response, Lilian offered many reassurances: "Your hands are tied…You did the best you could do with what you had…[The students] are very needy and immature…They don't know where they are going…That age is really hard…It's not your fault…You're doing the best you can." Henry agreed with Lilian, "I'm doing the best I can but I wish I could do more." He explained that, with four weeks still remaining in the school year, a fourth of the students in his enrichment class were not bringing work to class. According to Henry, the students' priorities were skewed: "They don't bring their pencil. They don't bring their paper. They don't bring their books. Nothing. But, 'Look here, I've got my phone.' " Henry's frustrations with his enrichment class seemed to be related mostly to his professed inability to reify, with several of his students, his belief that the role of the

teacher is to inspire a commitment to learning, and to help and encourage students to discover their passion.

Elena's Reflections on Her Improvement Plan and Teaching Platform

Elena shared that she initially selected her topic of assessment because she was interested in receiving support to improve her system of assessing student learning. She explained that the first thought she had always had regarding assessment was related to the state-mandated test, and that "through talking with you, and our group meetings, it kind of opened my eyes and widened my definition back to where I think it should be of what assessment is." Elena felt that she had "lost sight" of the meaning of assessment "because we've been conditioned to just create assignments that, you know, that you can put a grade on for the grade book." Elena believed that my reflective questions helped her to reconnect with her beliefs about assessment, and that during the projects they had recently been doing in class, she was able to assess student learning in more authentic and diverse ways.

Elena's broadened view of assessment was aligned with her teaching platform, which stated that one of the purposes of school was to teach students how to build positive relationships. Elena sensed that her increased awareness of conversation as a tool for assessing student learning was enhancing her ability to better foster those relational skills. According to Elena, as she compared her teaching decisions during the study to her teaching platform, she felt validated that she really does believe the things that she said she believed about teaching and learning.

I asked Elena to expand on her comment about "losing sight" of the meaning of assessment, and she explained that "when I say I lost sight of it, it's because of outside

requirements. I don't think it's because of me." Elena thought that in her efforts to try to accommodate "outside" demands for data, she lost focus on the true meaning and purpose of assessment. She did not, however, feel that the pressure to gather data was a contradiction to her beliefs, but rather that it was a limited, though necessary, view of the concept of assessment, and that this limited view was such a strong presence in teachers' work that it often became *the* view. "You just get into the habit, and this is what you do, and all of a sudden you would ask me questions, and I'm like, 'Oh, yeah, I'm just always over here with the assessment.' I always forget that there's something over here that can also prove to me that they're learning."

Elena acknowledged that one part of her teaching platform that she was not able to "get" this school year was students who were "eager" to learn. According to her platform, Elena believed that the role of the student is to come to school wanting to learn, and that the ideal school would consist of eager students who want to learn. As Elena reflected on her teaching platform, she realized that she also believed that school should embody a "learning culture," though she admitted that she had never really been sure if that is what she believed. "But what about the eager students I yearn for?", Elena reflected. "Next step, working in a school with a learning culture…I think that will send us back on that path to those eager students, because we're not in a school with a learning culture." Elena did not, at this time, address the role of the teacher in helping a school to develop the culture of learning that she desired.

The Teachers' Thoughts about the Study

Lilian shared that she enjoyed the group meetings because she appreciated hearing other teachers' points of view, and she considered our "togetherness" to be "like

a partnership." She also felt that the exercise of writing down her reflections helped her to reflect on her teaching, and she believed that she should practice it more because "it's mostly in my head, but this gives me something to work at." The written reflections allowed Lilian to analyze her thinking at a particular moment in time, and it also helped her to remember things that she wanted to try, as well as lessons that went well and those that did not.

Elena felt validated by the group meetings because she was able to hear that other teachers' experiences resembled some of her own teaching struggles. She also felt that "it's just nice to talk to teachers who value education and like their jobs and want to do them well." Regarding the written reflections, Elena expressed, "I hate doing reflections." Though she did not feel organized enough to use information from weekly reflections, she did find value in doing a final reflection because she believed it showed growth over time. The culminating reflection allowed Elena to see that most of her behaviors were congruent with her teaching platform, and that "there were things [in the platform] that are not what I do." Elena said that she likes to see change, and that when reflections are written daily, or even weekly, change can be hard to observe.

Henry explained that, through the group meetings, he had realized he was "in the same boat" as the other participants regarding their concerns with their school's culture. The written reflections allowed him to compare his current thoughts to the teaching platform he had created several months earlier, and by making comparisons, Henry noticed he had written that school should embody a positive and encouraging culture. This realization helped him to understand that he was struggling within the current culture of his school, and he believed that this part of the problem was beyond his

control. "It's not entirely my fault. I want it to be that way, and I strive for that, but it's not always like that."

Henry's comments about his beliefs regarding the ideal school and its culture sparked a comment from Elena, in which she shared a similar realization: "I just think it's interesting that all of the ones that we're talking about are the school. This isn't our classroom; it's the school. So, the parts we didn't accomplish are bigger than us." Elena went on to express that they are each just "one person," though she did acknowledge, "I know that we're three people here, but at the same time..."

All three teachers agreed that the study required them to share very personal views about themselves as teachers and their beliefs. Henry expressed that "it was hard looking at myself, not that I don't, but it was hard for other people to see me." Elena felt that "maybe that's what I don't like either…to say, 'Here's me.' " Lilian added, "Well, it's personal, and we're throwing it out there."

When Elena shared reflections about her experience with the study, Lilian commented that it seemed Elena had "great insight through this project." This prompted Elena to share some additional thoughts about the study:

It's work, Rachel, to help you out and to do this stuff. It really was, but the thing is, every time I work with you, and every time I talk with you, and I don't know if it's just you or any of these things, but it always makes me think back. Like I love to surround myself with other people who like to think and make themselves better because I love thinking about that. I want to make myself better. To be honest, I wouldn't do it with many people because I knew, in the end, you would make me think about something and make it worthwhile for me.

Henry also indicated that he had enjoyed the study, and though he "wouldn't do it for too many people," he did feel that it was something he would do again because "I think in the end it might help." Lilian agreed with Henry and felt that "all teachers should do something like this. I think they should, well, because I told you, we have fifteen people who are leaving. They're frustrated, and a lot of them are good teachers. That makes me sad."

Researcher's Commentary

When Lilian expressed to Henry that he was doing the best that he could, though he felt that he had "failed miserably," Henry agreed with Lilian. I wondered whether or not this exchange was supportive of Henry's espoused desire to improve student motivation, or if it in some way contributed to a mindset that was counterproductive to finding solutions. I do know that the exchange did not, at least in that moment, lead to a discussion about how to solve the issue at hand.

Later in the meeting, a similar conversation ensued when the participants discussed their individual struggles with satisfying various parts of their platforms, and they attributed these difficulties to the current "culture" of the school. Elena shared that their school culture made it difficult to inspire students to be eager to learn, and though her platform did not directly address the teacher's role regarding this issue, it did state that a role of the teacher is to create a safe environment. In our discussions about the word *safe*, Elena expressed that the school environment must be conducive to learning, and all three teachers agreed that a change in this regard was necessary. So, what is the role of the teacher, individually and collectively, in creating that safe environment that is conducive to learning? This reflective question was asked of the participants, in many

different ways, throughout the study. The next section provides details about the teachers' reflections and learning while participating in this study, as they shared their thoughts during the final round of interviews.

Final Round of Individual Interviews

The final round of individual interviews occurred after the third and final group meeting, and the goal of these interviews was to discuss the teachers' overall experience with the study, and specifically what and how they learned through the reflective processes, any changes they made in their beliefs and/or behaviors, and their plans for continued reflection and improvement. These interviews also provided an opportunity to clarify information that was shared during the study, and to verify my own interpretations of the teachers' experiences.

Lilian's Reflections on the Study and Plans for the Future

Lilian said that she loved doing the study. She felt that it required lots of mental work and that it made her reflect more on her teaching practices. Feeling that she had gained insight about her teaching, about what she was doing well and ways to improve, Lilian said, "How can you beat that? That's what we're always looking for, I hope." The only inconvenient challenge for Lilian was finding time to write her reflections, though she did feel that this exercise helped her to organize her thoughts and provided focus. In fact, Lilian decided that she would continue the practice of reflective writing and indicated that she had already designated a notebook for that purpose. Her plan was to write on a weekly basis, or alongside each class project, and to "jot down things I could do better to improve, things that didn't work so well, what I could do next year, or what I could do for the next project."

151

Lilian believed that reflection is a useful tool for setting goals for learning and improvement. She wanted to start applying this idea to her students' learning as well by having them write reflections about their learning each week and set learning goals. Lilian believed that a culture of learning is marked by students who come to school ready to learn, are engaged and excited, and find their passion and work towards it. She also believed that the school has a responsibility to facilitate the development of that type of culture. "We have to change that around so that they want to be here."

According to Lilian, reflection should play a huge role in a learning culture, "instead of these separate entities all the time," because she felt that when you reflect, you can share ideas and solve problems. Lilian stressed that teachers should be passionate about teaching, care about their students, and design lessons geared toward the students' passions. She clarified, though, that teachers have to adhere to a certain curriculum and are not encouraged to venture outside of those parameters, and that the state requires testing of that curriculum. As a result, Lilian believed that we, as a system of public education, "keep shoving more interventions down [the students'] throats," and that many of the students get frustrated because they don't think they can pass.

When asked to do so during the study, Lilian consulted her teaching platform and made comparisons to her teaching decisions. She concluded that her teaching behaviors were congruent with her beliefs, and that realization was significant for Lilian:

It lifted me up, lifted my spirits up, and I guess it proves that I'm doing what I believe in, and it's my passion, and I'm following my passion, which is what I try to teach my students. So, I'm walking the walk, so to speak. I never really thought about my teaching platform until you asked me what is it, and then knowing what

it was, well, I was curious, "Do I really do that? Oh my god, I really do that." So, what a great eye opener. It touched my heart. It made me feel good about what I do.

I asked Lilian if she would look at her teaching platform in the future, and she said that she would because it, and the whole experience of the study, was very powerful for her. She felt that it had happened at just the right time in her career when she needed to evaluate if she was doing this for the right reasons, and if it was still her passion. This process reminded her, "I just have to stay focused on that passion, and not worry about that stupid test."

Regarding Lilian's concern that the curriculum just "skims the top," she set a goal for the next school year to have the students come up with the questions and let them do the thinking instead of her asking all of the questions. She thought this would be difficult to do because "we have spoon fed them for so long," but she believed that if the students could use their knowledge, it would also help build their confidence. Her reflective question for this future action plan was, "How am I going to support the students to think for themselves?"

At the last group meeting, Lilian had shared that all teachers should participate in a reflective process such as the one provided by this study, and I asked her to elaborate on that thought. Lilian responded,

I think if teachers wrote their teaching platforms just to see if they really do follow them, it would give them insight that "maybe I shouldn't be a teacher" or "how can I be a better teacher?" It gave me great insight, this whole thing. I think I try to improve my teaching more now based on my teaching platform. It made

me more aware of what I believe in. I know there are teachers who say they
believe in it, but then when you walk in their classrooms, you're like, "What?
There is no way that you believe in relationships when you just told that kid to sit
down and shut up." Wouldn't it be awesome if teachers [wrote a platform] at the
beginning and then just compared? I think that all people should do that with all
of their jobs, right? Reflect. What an awesome tool that is to reflect.

Lilian felt that a process like this would support the development of a learning culture.
She expressed concern that our education system does not seem to have a clear or
consistent goal, and that so many students are willing to quit when a task seems difficult.
Lilian was adamant that a focus on testing significantly contributed to a lack of deep
engagement by promoting a pass/fail mentality rather than an appreciation for learning
and growth, and she felt that this pressure impacted both students and teachers.

Henry's Reflections on the Study and Plans for the Future

Henry began this meeting by stating his plan for the next school year: "At the
beginning, I'm going to start talking to parents…I'm just going to lay it on the table."
Henry believed that improving student motivation required a team effort from the
students, the students' parents, and the teachers. Henry did not want to experience
another year as difficult as the one he had just experienced with his enrichment class, and
he remained concerned and had become convinced that the students did not know, or did
not care, about their futures. The kids that come in here and are motivated to work and to
learn, they know that they are working for their future. The other ones, they don't see
their future." Henry shared a story about a student and the student's focus on a pair of
shoes:

The same little kid had a brand new pair of shoes, and for two weeks straight he walked like this. Do you know why? He didn't want to put creases on his shoes. That was very important to him, his new shoes. But to pick up a book and learn how to read was not important to him. He doesn't see that if he learns how to read, if he learns how to work, he will be able to not only get shoes for himself but for his own kids. He didn't see that. I can't make him see that. I can't, I want to, he needs to, but he doesn't see that.

I asked Henry if he ever talked to the student about the shoes, and Henry explained, "No, I didn't mention that to him. I thought that would be too harsh."

Henry's teaching platform stated that the role of the teacher is to inspire a commitment to learning, and to help and encourage students to discover their passion. In this light, I encouraged Henry to think about and share why he chose not to support that particular student to recognize and perhaps redirect his focus on his shoes. As he reflected, Henry recalled another similar instance when he did not support a student to recognize her behaviors which were also not conducive to learning. In that situation, the student reverted back to her unproductive behavior just one month after a very emotional conference with the student and her mom. Henry again felt, though, that sharing his observations with the student, and reminding her of that conference, would have been "too harsh." He believed that the students in his enrichment class perceived him as being mean and strict, and that this perception prevented him from being able to have this type of conversation with the students.

Henry, on the other hand, did not perceive himself as mean or strict. "I'm basically doing my job, and insistent that they do theirs. To let them waste time while

they're here, well, that's the wrong thing." Henry felt that the students, when they did not

pass the test or their classes, "are more to blame than anyone else," and he believed that

"you get what you put into it, and if they put very little into it, they're going to get very

little out of it." I expressed to Henry that I perceived his stories, the ones he felt were too

harsh to share with the students, to be powerful stories, especially since they seemed

symbolic of the struggles that he said many of his students were having regarding their

lack of motivation to learn.

About the study, Henry said that it "helped me reflect on me, think about me,

about what I feel, where I stand, and what I need to do to improve. It put a light on me

that I probably hadn't had on there for a long time because I was comfortable." Henry

expressed that the enrichment class situation had made him uncomfortable, and "so, I

looked at myself." He believed that discomfort prompts change to occur because "you

have to rethink [your teaching]." Henry shared that he would continue to reflect over the

summer about his teaching practices in relation to his beliefs.

Since the participants were asked to make observations, to write, and to share,

Henry said that he reflected constantly throughout the study. "That's what it did for me,

and that's one of the things you brought. It helped me. It's helped me to see. You know

what it did? It reminded me, not that I forgot, not entirely, but it reminded me why I got

into education." Henry entered the field of education because he wanted to make a

difference, and he decided that he would keep that thought in the front of his mind next

year. "We'll see if that changes things in this type of situation with my enrichment class.

I hope it does. We're still going to do our jobs, me and the kids, but maybe I'll have a

different attitude." Before the study, Henry had always thought of his classroom as "my"

class, and he realized that "now I need to keep in mind 'the shoes'…maybe that's where I need to help. Maybe I need to let them see me a little bit more."

Henry appreciated the opportunity to share with others and hear their ideas, and "to express what I'm feeling. I don't normally do that." He felt strongly that trust was paramount to participating in a study such as this:

> Normally I don't talk to anyone else about these things, and I'm also very comfortable with you. I've known you for a long time. I felt comfortable and I knew I could trust you. That was the good thing about this study. I could talk to someone openly and freely without too much hesitation and too much fear of reprisals or anything like that."

Henry believed that you don't tear down a teaching platform, but that instead you build upon it, and he felt that this study helped him to remember to look at his teaching strategies and evaluate them: "You have to change, time changes. We can't become stagnate. You have to change." Henry said that he was going to consider sharing more of himself with his students, and he hoped that this would change their perception of him, and "make things more positive." Henry's teaching platform stated that to teach is to share your knowledge, passion, and enthusiasm, and to open eyes and minds by sharing what you have and who you are. Henry's overarching plan for the future was to realign his behaviors with this belief.

Elena's Reflections on the Study and Plans for the Future

Elena described the study as an overall positive experience that was challenging and time-consuming. "It made me think about me as a teacher which then validated some good things that I am doing." Elena felt that the study provided necessary encouragement

for her during a tough school year. She also shared that, even though observations can make teachers nervous, it was nice to be observed because it brought awareness to her about her teaching. The greatest challenge for Elena was creating the teaching platform, and then wondering, "Is that what I am actually about?" Another challenge was time, specifically finding time to write reflections and to attend the after-school meetings. Regarding the relationship between the reflective processes that were built into the study and her own learning, Elena believed that reflection "allows you to see what depth perhaps that something has been learned," and that by thinking about what you know, you can figure out what else you need to learn.

When Elena reflected on her teaching platform at the end of the study, she felt validated that "that's what I do. That's cool." She did not know, though, if the teaching platform was something she would refer to in the future: "I still believe what I believe, so I don't know why I would." In response, I reminded Elena of the learning she said that she had experienced as a result of this process. She had shared that she widened her definition of assessment, she began administering daily quizzes again, and she described the study as an opportunity to think and try to make yourself better. Elena responded, "Maybe it's not even to make myself better, but it's just to make sure that I stayed true to what I believe." I asked her how she does that.

> I feel like it just kind of happens in the fact that you have those really great days and you have those good days, and you feel like you coast a little bit, and all of a sudden you have a bad day and it turns into a bad week and you're just like, okay, I need to refocus. So, maybe that refocusing is kind of me thinking back and putting myself back on the course of that platform of really what I believe.

Though Elena stated that she would probably not refer back to her teaching platform again because she felt her beliefs had already been confirmed, it did seem that the platform served as the baseline for her "refocusing."

Periodically during the study, Elena and I discussed her difficulty in forming a well-defined question for her teacher research, which she felt was necessary for effectively addressing any issue. I asked Elena if she was still feeling that same uncertainty about her topic:

> Yes and no. I don't know if I can tell you what my question is now, but I still got to a point about assessment. I got something out of it. I was still able to think about and reflect on what assessment is and how I can better assess my students. Without a well-defined question, it was probably a little bit harder to do it that way.

I paraphrased to Elena what she had just articulated to me, and asked her if she would consider this to be a well-defined question: What is assessment and how can I better assess my students? Elena's response, "Oh. That sounds like a great question."

Researcher's Commentary

All three participants felt that by engaging in the reflective processes used in this study they were able to confirm that their teaching platforms reflected their actual beliefs about teaching and learning. Each teacher found some discrepancies between his/her beliefs and behaviors, and it was particular behaviors that the teachers felt needed adjustments, not their beliefs. As examples, Lilian recognized that she needed to prepare differently and better for projects in order to satisfy her beliefs about curriculum, Henry was contemplating sharing more of himself with his students in order to align with his

beliefs about what it means to teach, and Elena continued to think about ways to assess student learning in accordance with her beliefs about what should be assessed/measured in school.

Summary

At the time of this study, and during a particularly tough year for teaching, Lilian felt that the experience of reflecting on her teaching beliefs and sharing ideas with other teachers provided her with a renewed sense of being in the right place. Her main professional concern always seemed to be on the students' wellbeing, and she believed that her role as a teacher included supporting students to build their confidence. Lilian's consistent criticism of the high-stakes testing system in Texas was that it was often administered to the detriment of students' self-esteem, causing many students to feel like failures. Lilian's platform motto, "On Beyond Bubbles," captured her desire for less focus on standardized testing, deeper engagement with curriculum, and a collaborative culture of learning.

Lilian felt that her practices were mostly consistent with her teaching platform, and she decided to address discrepancies that she found as areas for improvement. Though Lilian felt that many of the issues that impact student engagement are beyond her control, she also felt that it is her job to engage students by making each lesson meaningful. Aligned with her platform, Lilian's instructional approach focused as much as possible on students' interests.

Lilian's action research topic of student engagement was selected because she had noticed that the students sometimes seemed bored, and she was lecturing more than she thought she should. Lilian began to implement strategies to place more of the learning

responsibility on the students, supported the students to ask more thoughtful questions, and committed herself to preparing more thoroughly for lessons to make the content more meaningful for the students.

Lilian believed that all teachers should be encouraged to analyze their beliefs and practices as she did during this study. She had often observed teachers' frustrations with the teaching profession and felt that this type of reflective process would support other teachers as well to understand and effectively manage issues in a collaborative environment where ideas are shared and teachers learn together. Lilian seemed genuinely open to suggestions and continuous improvement, often asking for feedback on how to improve her teaching, making adjustments to her teaching practices, and then reflecting on the impact of the adjustments.

Throughout the study, Henry often referred back to one of his earliest notions about teaching and learning, that "all learning is self-learning." He said he also believed, though, that a teacher is responsible for inspiring and encouraging a commitment to learning, and teaching students how to learn. His platform motto, "FIND your PASSION and SHARE it!!!" represented his purpose for teaching and his belief about a teacher's main role in students' learning.

Henry's action research topic of student motivation was selected because he was concerned by the lack of motivation that he observed from many of the students in his enrichment class. As an art teacher for eighteen years, Henry had never experienced this issue before, to this extent, with his art students, and he was not sure how to improve the situation. During the final interview, Henry finally made connections between his teaching behaviors and his teaching platform when he acknowledged a discrepancy that

seemed major, and he shared his plans for future action. Henry had realized that he was not sharing himself and his passion for learning with the students in his enrichment class. He had always done so naturally with his art students, and Henry determined that he would reflect about how to create similar connections with his enrichment students. Henry had expressed that one of the barriers to student motivation in his enrichment class was the students' perception of him, and he hoped to find ways to change that perception.

Henry, who typically felt isolated professionally, shared his appreciation for the opportunity to meet with other teachers and discuss issues and ideas. He felt that the study put him in a spotlight that was, at times, uncomfortable, but that it reminded him of his purpose, and Henry saw great value in this. He even felt that this process is something that he would do again.

For Elena, at the time of this study, and after twelve years in the teaching profession, she was experiencing her most difficult year with many student behavior issues and not enough planning and collaboration time. The platform questions prompted Elena to think about her teaching, and to uncover her actual beliefs about teaching and learning. The exercise of creating a teaching platform was somewhat stressful for Elena, but she said that the process, along with the collaborative nature of the study, provided just the support she needed during a tough school year. Elena's platform motto, "Got EAGERness??? The Importance of Being Eager," reflected her belief that the most important aspect of learning is *wanting* to learn, and the reflective processes in this study, according to Elena, encouraged her to learn about her beliefs and analyze them in relation to her teaching practices. Elena felt this brought awareness to her about her teaching, mostly by providing validation of her beliefs.

Elena's action research topic of assessment was selected because she wanted to develop an assessment system that would provide her with data that better indicated her students' learning progress, and that she could then use to make informed instructional decisions. Elena remained unsure throughout the study about whether or not her topic was something she could actually study and improve, and at the final interview, she was on the verge of articulating a revised research question that would assist her continued efforts to improve her assessment of student learning.

CHAPTER V

Discussion, Conclusions, and Recommendations

Teachers typically do not have professional space to think, and think together, about teaching and learning, and this space is critical for significantly impacting teaching practices to improve student learning. Reflective practices can provide the "deliberate pause" (York-Barr, et al., 2001) necessary for analyzing thoughts and actions, and considering how to use that information to improve our work. The current literature base thoroughly addresses characteristics of learning communities, and it includes reflective inquiry as an essential characteristic; however, little research has been conducted to address how teachers learn when they are given the opportunity and support to engage in reflective practices.

Pratt (1998) asserts that we must pay attention to "intentions and beliefs" regarding teaching and learning if we are to make significant and real changes in behavior. To examine how teachers learn when they intentionally consider their beliefs, this study was driven by the following research question: How do teachers experience learning, through a reflective inquiry process focused on improving instruction, when they engage in ongoing reflection regarding their teaching beliefs, teaching behaviors, and the relationship between those beliefs and behaviors? My main goal was to understand how teachers experience various reflective practices, and how those practices impact learning. To that end, I conducted a case study of three teachers as they engaged in action research that was self-selected by each teacher, and which addressed an immediate teaching concern situated in their current professional contexts. During the

164

study, and while the teachers worked to implement action research plans, the teachers experienced a reflective inquiry process that included a focus on teaching beliefs and behaviors, the researcher as a critical friend, and collegial group meetings.

Lilian appreciated the feeling of validation that she felt when she realized her teaching behaviors were consistent with her platform, and she also embraced the idea of finding discrepancies between her beliefs and behaviors, which she used as opportunities to improve her practice. Henry struggled to accept discrepancies that were revealed through our discussions; however, at the end of the study, he accepted responsibility for a major discrepancy by sharing a plan for improvement for the next school year. He had realized a particular teaching behavior that he wanted to change to impact students' learning experiences. Elena initially expressed difficulty with creating a platform because she wanted to create an honest platform, and it was difficult for her to realize her actual beliefs about teaching and learning. While Elena also felt that her beliefs were confirmed, this difficulty appeared to be an issue for her for the duration of our work together. Though each teacher's journey through the reflective inquiry process was unique, many general themes emerged from the study.

Discussion

Platforms Reconnect Teachers with Their Purpose for Teaching

A theme that cut across all three participants was that they each had not before considered their teaching beliefs, especially not in a focused and purposeful manner with a goal of professional development. They also had not heard of a teaching platform as espoused by Sergiovanni and Starratt (1983), or ever created a written document of their beliefs about teaching and learning. Although the teachers expressed interest in

improving their teaching, they had not ever considered their teaching behaviors in relation to their beliefs. Using a teaching platform as a lens for analyzing their practices was the teachers' first experience with this type of reflection. Through this process of reflective inquiry, each teacher reconnected with his/her purpose for teaching, which they all shared was something they had not consciously considered in a very long time, and each teacher explained that this reconnection was significant. In each participant's own words, he/she referred to the teaching platform as a newly discovered baseline for analyzing his/her teaching, and this served as a motivator to achieve alignment between beliefs and behaviors. The reconnection with their purpose for teaching also provided the teachers with a sense of rejuvenation. All three participants had experienced a difficult school year and felt that the reflective processes of this study, centered on the teaching platform, validated their beliefs. This helped them to approach their work more positively and passionately, which was an approach that they all felt was more attuned with how they felt they should be, and had been earlier in their careers.

The teaching platform, according to Sergiovanni and Starratt (1983), can serve as a basis for teaching behaviors because it outlines what a teacher believes "ought" to occur. This concrete reminder to the teachers of their beliefs about education helped them become reconnected to their reasons for teaching and their purpose for their work, and that reconnection was evolving into a natural foundation upon which the participants could reflect to evaluate their teaching. This study supports the proposition that a teaching platform can serve as an important reference for teachers' preferred behaviors and outcomes, and that the process of creating a platform and referring back to it as a point of analysis for teaching behaviors can reconnect teachers with their purpose for

teaching, which in turn can facilitate a sense of professional renewal and provide a source of motivation for teachers to improve their instruction.

Sharing Beliefs Promotes Teacher Accountability

Another conclusion drawn from the results of this research is that the sharing of personal beliefs about teaching and learning promotes teachers to hold themselves accountable for their own behaviors. This study was personal for the teachers. They shared that it was "hard for people to see me," but they all agreed that it was important to take a conscious look at themselves. Analyzing their beliefs and behaviors publicly, with a facilitator as well as with a group of peers, provided the discomfort needed to stimulate change. This was, at times, an emotional process for the participants, and they each cried at some point during the study. Each of those times, the teachers were reacting to the realization that they had lost touch, to varying degrees, with their purpose and passion for their work. This process was consistent with Festinger's (1957) theory of cognitive dissonance. By allowing others to know their beliefs, and that their teaching behaviors had fallen short of those beliefs, the teachers helped to create an accountability system of reflective inquiry that placed their beliefs at the forefront of improvement efforts. This system was necessarily based on trust, which agrees with the literature on various vehicles for reflective thinking. Similar to Hedges' (2010) study, I found that by establishing a critical friendship, I was able to challenge the teachers' practices in relation to their espoused beliefs, and support them to make improvements. This study also agrees with Penlington's (2008) finding that trust is critical for achieving dissonance during group dialogue, and then effectively using that conflict to make changes in teachers' practices.

By building relationships with the participants and establishing trust, we were able to engage in open communication, which otherwise would not have occurred. Each teacher expressed appreciation for the consent form that stated I would not share my findings with their school principal, and felt more at ease sharing information with me because of that signed agreement. The teachers also expressed that they felt comfortable with me, and that feeling allowed them to share more freely.

Becoming Aware of Discrepancies Can Motivate Teachers to Change

Each teacher experienced both conflict and consistency between his/her beliefs and behaviors. While the experience of consistency resulted in feelings of validation for all of the teachers, the experience of conflict resulted in feelings of uneasiness, consistent with Festinger's (1957) concept of cognitive dissonance, specifically how people respond to new information that is not consistent with an existing cognition. Lilian experienced the most change because she approached the discrepancies as opportunities to learn from new information and adjusted her practices to align with her beliefs. Henry experienced the least change because, up until the very end of the study, he tended to add information that he felt supported the discrepant cognition, or disregarded the dissonance entirely. Elena responded, at different times, in both of the ways described above for the other two teachers. All three participants first tried to rationalize inconsistencies as they became aware of them, but Henry and Elena remained in this phase much longer than Lilian. When they were not able to rationalize the dissonance, all three became uncomfortable and then responded in various ways to rid themselves of the discomfort.

The teachers' responses to cognitive dissonance support Festinger's argument that people have an inherent desire to maintain consistency amongst their cognitions. This

study prompted the participants to experience cognitive dissonance by having them reflect on their behaviors and then refer back to their teaching platforms as a source for comparison. When the participants became aware of beliefs and behaviors that were not consistent with each other, this sparked the cognitive dissonance, which in turn motivated the teachers to reduce the dissonance. This agrees with Gordon and Brobeck (2010) who assert that reflecting on behaviors in relation to beliefs can lead to cognitive dissonance. This also agrees with Golombeck and Johnson's (2004) study which found that learning and change can be generated by facilitating awareness of dissonance through the use of a "meditational" tool, such as narrative inquiry, or in the case of this study, the teaching platform. An implication for school leaders is that teachers should be supported to become aware of discrepancies between their beliefs and behaviors, or the discrepancies will remain unnoticed and unchallenged, and likely unchanged.

One of the reasons the teachers experienced conflict between their behaviors and beliefs was because they were not in the habit of considering their beliefs. Though the teachers considered themselves to be reflective practitioners and seemed to reflect on their teaching in terms of lesson design, their reflections, without intervention and support such as provided in this study, were not focused on their teaching behaviors in relation to their beliefs. Even once the teaching platforms had been created, the teachers did not achieve awareness of discrepancies on their own. It was the vehicles for reflective inquiry, such as the post-observation conferences and the collegial group discussions, that supported the teachers to recognize and resolve the cognitive dissonances.

Engagement in Teacher Inquiry Is Essential for Professional Development

The teachers' ability and/or willingness to acknowledge and learn from the discrepancies between their beliefs and behaviors as the discrepancies were revealed through the reflective inquiry process was directly related to their ability and/or willingness to engage in teacher inquiry, as the cycle is explained by Gordon (2010), with reflection being a key component of the process. Lilian used reflection to consider her teaching and she made the most improvements; Elena did so, at times when prompted, and she made some changes; and Henry resisted until the end of the study and did not make any significant changes to his beliefs or behaviors, though he did commit to doing so the next year. This agrees with Boud and associates' (1985) theory that learning occurs when ideas are consciously evaluated. Each of the teachers was unaware that he/she was engaging, to some extent, in teaching practices in which he/she did not believe, and it was the reflective process that enabled this awareness and subsequently provided opportunities for informed change to occur. This happened at different rates for each participant. Though all three teachers believed that they were reflective teachers who constantly reflected, their reflection was typically not systematic and it was not a recursive process linked with action. The teachers' individual responses to cognitive dissonance, and their varying degrees of change experienced during the study, are consistent with Nelson's (2008) finding that, out of the three teacher groups she studied, the one that experienced the most change in instruction was the one that developed an inquiry stance and was able to integrate new understandings into current practices.

The teachers were operating at different reflective levels as explained by King and Kitchener's (2004) reflective judgment model, and this study agrees with King and

Kitchener's proposition that progression from one stage of reflection to the next is typically a challenging and slow process because it requires a mental shift. The reflective inquiry process employed by this study supported the teachers to engage in reflective inquiry through the critical friendship I was developing with each participant, the collegial group meetings, and the active listening and reflective questioning that was an essential component of each of these reflective processes. Similar to Nelson's (2008) assertion, as the teachers' beliefs and practices became "deprivatized," the teachers moved closer to an inquiry stance. The more they engaged with others in teacher inquiry to analyze their beliefs and behaviors, the more they learned from the reflections and were able to change. An implication of this for school leaders is that we need to consider how to support teachers to engage in reflective inquiry as a commonplace professional development practice.

Informal Discourse Should Be Acknowledged and Analyzed

Statements that teachers make informally during discussions about their teaching practices and student learning can represent beliefs about teaching and learning that the teacher may not include in a written platform, and if these statements are not challenged in relation to the teacher's espoused platform, these unclaimed beliefs will continue to guide the teacher's practice. As explained by Ustuner (2008) and Glickman, et al. (2010), teachers' instruction is impacted by a set of conceptions and attitudes, an educational philosophy.

Two of the participants, Elena and Henry, made comments to the group and to me that seemed to be deeply rooted beliefs, and which impacted their approach to teaching, yet they did not include those ideas in their teaching platforms. Even though these

teachers were willing to make the statements aloud, it seemed that they were not willing to accept the statements as beliefs. I propose this is because the statements sounded unprofessional and uncaring. Elena even acknowledged at one point that a comment she made about a teacher's role in student learning sounded "terrible," yet she did not connect that statement to her teaching platform or to her teaching behaviors. Lilian, who experienced the most growth during the study, did not make statements that were inconsistent with her written platform. In accordance with Argyris' (1991) explanation of espoused theories of action and theories-in-use, Elena and Henry were often not aware that the way they wanted to behave and thought they behaved was not consistent with the way they actually behaved.

The literature regarding educational platforms discusses how platforms can serve as a basis for teachers' behaviors and decision making, and this study agrees with that proposition. This study also found, though, that a written platform may not be sufficiently complete or accurate, and that this needs to be addressed in relation to what teachers say informally. Cognitive dissonance, as described by Festinger (1957), is the factor that can motivate someone to change a particular cognition, and Dewey (1910) argues that the first step in the process of reflecting is experiencing a "felt difficulty." Once Elena and Henry became aware that a statement they made did not align with their platform, they were able to begin addressing the conflict. An implication for school leaders is that teachers should be encouraged and supported to analyze not only their beliefs and behaviors, but also their informal discourse about teaching and learning, and the relationship amongst all three.

The School Culture Must Be Conducive to Reflective Inquiry

When reflective inquiry is not embedded in a school's culture, teachers'
professional development can be hindered, especially for teachers who are not
accustomed to purposefully and systematically using reflection to improve practice. On
the other hand, when teachers are given the opportunity and support to analyze their
teaching and make improvements, they can rise to the challenge. Zepeda (2008) asserts
that when we support teachers to engage in inquiry as an essential part of their work, we
are able to effect change. This study fostered reflection and reflective dialogue for the
participants. Their professional working environment, however, was not aligned with the
reflective environment that was the essence of this study, and the teachers were often
both appreciative and apprehensive when I asked them to think and operate in ways that
were not typical of their school culture. This study agrees with Attard's (2012) assertion
that to partake in reflective writing and participate effectively in a community of practice,
as espoused by Wenger and Snyder (2000), it is necessary to have school structures that
support those efforts. One reason the teachers appreciated this study was that they felt
isolated and were not supported at school to reflect on their teaching. They all embraced
the chance to engage in a collegial group. In light of The Stanford Center for Opportunity
Policy in Education's (2010) finding that the structure of our schools rarely provides
opportunities for teachers to engage in collaborative inquiry focused on improving
teaching and learning, this study provided that type of opportunity for the participants,
which was not the case in their everyday work environment.

During the study, there was some reluctance, to different degrees for each
participant, to write reflections; the teachers were not accustomed to doing so, and they

felt there was not enough time for this endeavor. There was also reluctance, much more so for Henry and Elena than for Lilian, to think about behaviors in relation to beliefs, especially when a discrepancy was being discovered. Research was not a commonplace activity as Schön (1983) argues it must be, the teachers were not in the habit of engaging in reflective inquiry and sharing their reflections, and they did not inherently trust the process of exposing their weaknesses, as they were typically not supported in this way. This perception is consistent with Argyris' (1991) theory of defensive reasoning, which explains that the defensive way in which professionals tend to reason about their behavior prevents them from objectively analyzing their behaviors with respect to their beliefs. Through the reflective inquiry process, though, and in agreement with Jordi's (2011) conception of meaning-making, the participants were able to analyze their practices and develop new understandings. The teachers realized that they shared a common struggle with their school's lack of a learning culture, and initially used this information to lay blame elsewhere. However, by continuing to analyze their beliefs and behaviors and by working to solve specific problems of practice, the teachers, each in his/her own time, began to assume a sense of responsibility for the issues that they had originally deemed to be beyond their control. In agreement with Camburn's (2010) finding, it was the teachers' access to professional conversations focused on teaching and learning that supported them to engage in reflective practice and take ownership for improving their teaching. An implication for educational leadership programs is that we need to consider how to support prospective school leaders to develop the skills necessary for fostering school environments that are reflective in nature.

Effective Dialogue Facilitates Teacher Learning

Dialogue is a critical component of reflective inquiry. This perception is consistent with Gordon's (2010) conception of the cycle of inquiry, and with Keedy and associates' (2001) notion of collegial groups. This study found, though, that the dialogic support and encouragement that teachers receive can either facilitate or hinder their learning. As the researcher and a participant in this study, I found it necessary to provide support to the teachers that was appropriately challenging for each of them based on each teachers' apparent readiness to accept new information. As I recognized discrepancies between teachers' beliefs and behaviors, I made decisions about whether or not to acknowledge and discuss a discrepancy if the teacher did not acknowledge it first, and this varied by participant. Lilian had a high level of readiness from the start and was able to use new information to make changes to her practice; Henry did not initially demonstrate readiness, but he began to by the end of the study; and Elena vacillated throughout the study between accepting and refusing new information. All of the participants were able to increase awareness of their practices and were able to make changes; however, they did so at different rates. It was a balancing act to facilitate the teachers' analysis of their beliefs and behaviors, and at the same time, maintain the essential component of trust. I also had to keep in mind that the teachers' participation in this study was voluntary, and the reflective inquiry process was a significant amount of additional work for them.

The component of the study that all of the participants appreciated the most was the opportunity to engage in professional conversation. Through dialogue about their beliefs and behaviors, the participants reconnected with their purpose and increased their

motivation to make changes to their practices. They felt supported and safe to share their ideas and struggles. During the group meetings, the teachers sometimes asked reflective questions of each other and provided encouragement that facilitated self-reflection. At other times, the teachers provided each other with encouragement that seemed to stall the learning process, mainly because it supported a mentality of excuses and blame rather than inquiry. An implication for school leaders is that we must build relationships and trust with our teachers, and foster an environment of reflection and collegiality that is conducive to professional inquiry and dialogue. We must also support teachers to engage effectively in these reflective processes. For educational leadership programs, an implication is that we must consider how to equip school leaders to be able to do all of those things.

Conclusions

Based on the participants' individual experiences with learning through the reflective inquiry process, and the many themes that emerged from the data, there are three major conclusions that can be drawn from this study.

- When teachers are encouraged and supported to reflect on their teaching behaviors in relation to their beliefs, they are able to recognize consistency as well as dissonance between those behaviors and beliefs, and incorporate new understandings into their current practices to improve instruction. This learning space for teachers, which is not typical for school environments, is centered on reflective inquiry as a continuous process of professional development, with a goal of making reflection a conscious, authentic, and public activity that is recursively interwoven with action. By deprivatizing beliefs and systematically

collaborating to analyze behaviors, teachers begin to understand and connect more deeply with their work, and take responsibility for improving their teaching.

- Teachers experience learning differently and must be supported as individual learners with unique needs. Each teacher progresses in his/her own way toward an inquiring approach to teaching and learning. Teachers operate at different levels of reflection and have varying levels of knowledge about and practical experiences with reflective processes. This must be understood and effectively managed by those charged with facilitating teachers to engage in reflective inquiry. When supported to think critically about their craft, teachers want to improve, and to this end, teachers need support that accommodates their individual developmental levels and personal approaches to learning. Teachers should be challenged to take a conscious look at their teaching beliefs, but this must be done in ways that encourage and support teachers to dialogue honestly and openly about those beliefs and their relationship to the teachers' actual practices. Each teacher responds uniquely to this challenge.

- Reflective inquiry in general and specific vehicles for inquiry such as action research are "messy" processes that require a long-term commitment in order to be established as commonplace professional development practices and as the learning culture of a school community. This requires trust and can take a long time, especially for environments in which this type of thinking and engagement is a remote concept. Inquiry is personal, and for most teachers, it is not an intuitive undertaking and therefore necessitates a mental shift. Establishing reflective inquiry also requires analysis of the reflective inquiry process itself. As

educators are learning to more effectively link reflection and action to improve

instruction, they must deliberately analyze that learning process as well. It must

be an ongoing cycle.

These conclusions call for school leaders to foster learning environments that are

reflective in nature. In that light, I propose several recommendations for K-12 schools,

educational leadership preparation programs, and future research.

Recommendations

Recommendations for K-12 Schools

For teachers to be able to engage effectively in a reflective inquiry process to

improve their practice, school leaders must ensure that reflective inquiry is the foundation

upon which a school operates. I recommend that principals involve their respective

school faculties in learning experiences regarding different levels of reflection,

observations and conferrals, teacher inquiry and action research, study groups, teaching

platforms, and reflective dialogue.

School administrators should collaboratively develop and implement with

teachers a clinical supervision or peer coaching program, including an observation and

conferral system focused on teacher learning and based on non-judgmental descriptions

of teachers' practices, with an understanding of how to adjust a supervisory approach to

match a teacher's learning needs. School administrators should support teachers to

engage in action research to address problems of immediate concern in their classrooms,

encourage teachers to develop goals and action plans for instructional improvement and

to share their progress with peers, and provide support for such efforts. I suggest that

principals facilitate inquiry-based partnerships focused on analyzing the relationship

between teaching and learning, and that these collegial study groups should form naturally and be voluntary.

All teachers should consider their teaching and learning beliefs and write a teaching platform, and then share those ideas with other teachers. The platform should be used as a baseline for making comparisons to a teacher's actual practices and discourse. I recommend that a faculty work together to determine what should be included in a teaching platform, using the literature as a resource. I further recommend that principals offer teachers the opportunity to form small groups to engage in a reflective inquiry process similar to the one employed by this study. The teachers should share their action research projects, their teaching platforms, and their findings and reflections at faculty meetings.

To facilitate the development of a reflective learning culture, school leaders should be learners of their own craft and assume an inquiry stance to education. As a model of this approach, they should engage in their own action research and discuss the process with the faculty on an ongoing basis. I strongly recommend that school leaders create an educational/leadership platform, share it with the teachers, and then reflect regularly on their own behaviors and beliefs and share those findings. It would help to develop a critical friendship with another school leader who would provide support in comparing behaviors and beliefs. School leaders should reflect on their interactions with teachers, evaluate the effectiveness of those interactions, and support teachers to reflect on their own interactions with other teachers, with ongoing dialogue as a school-wide goal. I propose that principals must analyze school structures for the level of support they provide to teachers' engagement in reflective inquiry, and establish structures that

support the time and work involved in integrating reflection and action. Reflective inquiry must be the culture of the school, not something "extra" for teachers to do. Consistent with one of the conclusions above, it is important for school leaders to understand that this type of organizational development takes time to establish. For school cultures that are not accustomed to engaging in reflective inquiry, becoming a learning culture that reflects systematically on teaching beliefs and behaviors for the sake of instructional improvement and school reform will require educators to adjust their practices and shift their thinking.

Foundational to all of these recommendations is the essentiality of school leaders building relationship and trust with teachers, and creating a safe space where beliefs and behaviors and discourse can thoroughly be examined. I suggest that district-level administrators facilitate similar learning opportunities for school leaders to support them in fostering productive learning environments for teachers. To this end, it is essential that there be an educator at the district-level who understands how to develop reflective inquiry in schools and is responsible for leading that organizational development. With all improvement efforts, teachers and school leaders should continuously reflect on the process and use their learning to effect change.

Recommendations for Educational Leadership Preparation Programs

Prospective school leaders should graduate from educational leadership preparation programs with the necessary know-how to foster reflective school environments, and should be equipped with all of the skills mentioned in the previous section on recommendations for K-12 practice. To facilitate that learning, I recommend that preparation programs organize opportunities for students to study about the

components of a reflective inquiry process and then apply that knowledge in practical situations. Universities should establish partnerships with schools and collaborate to develop pilot programs for reflective inquiry. This would serve as a professional development tool for the partnering school's administrators and teachers as well as for the graduate students, and it would also serve as a means for studying the process of reflective inquiry.

Graduate students should be required to create their own educational/leadership platforms and use them in the same manner as was done in this study. Throughout the preparation program, the students should refer to their platforms and reflect on the relationship between their beliefs and behaviors. I propose that the development of critical friendships should be facilitated, and that this process should be studied and evaluated to continually improve the nature of that relationship. This would enhance the students' learning during the program, and prepare the prospective school leaders to develop effective relationships with their teachers when they become practicing school administrators.

Recommendations for Future Research

From my experiences as a teacher and school leader, furthered by my experience with this study, I have come to realize that purposeful and systematic reflection in our schools is not the norm. There is a need for further research on the process and impact of analyzing beliefs and behaviors for the purpose of school improvement, specifically in terms of improved teacher instruction and student learning. Research in the following areas may help to fill the research gap and improve the general nature of our schools by providing additional insight on how to cultivate a reflective school environment:

181

- A similar study that incorporates a larger group of participants and expands the length of the study to a full school year.

- A study that implements the reflective inquiry process with a practicing administrator as the researcher conducting the research with his/her own teachers at their school, and which documents how the administrator and teachers experience that process and what they learn.

- A study of school leaders engaging in the reflective inquiry process to examine how their beliefs and behaviors regarding educational leadership are impacted through the experience, and the effect this has on their schools' learning environments. Teachers from each school could be surveyed regarding their perceptions of their respective school's professional culture at the start of this study and then again at the end.

- A study that examines teachers' levels of reflection in comparison with their responses to cognitive dissonance.

- A study focused on teachers' informal discourse in relation to their teaching platforms, and which documents their responses to the findings.

- A study of the perceptions of principals and superintendents regarding their knowledge of reflective inquiry and their beliefs about its role in school improvement.

What I Have Learned as a Researcher and Educational Leader

This research process has helped me to better understand the need for evidence to support my thinking. I have gained a clearer perspective of what that looks like and feels like. When learning about grounded theory prior to starting this study, I read that you

should let the data speak to you; and while writing the results and the discussion sections of this paper, I really started to understand the significance of that methodology and that statement. The data actually did speak to me, and that was a powerful experience that has opened me up to being more objective – not less passionate or compassionate, but more objective, and this is already serving me well as a researcher and educational leader, as well as personally.

Conducting this kind of field-based research was challenging mainly in that I was trying to study a phenomenon that was not inherently supported by the participants' school culture, and though this caused difficulties, the difficulties were an important part of the study. Schools in general do not support teachers to reflect on their practices, and my participants' school was on par in that regard. This study enabled me to take a close look at action research and teaching platforms and how teachers experience reflective processes. These understandings are already shaping my approach to educational leadership, specifically in the way I work with teachers to improve instruction.

Research is a personal experience and it is a responsibility. I learned that the data are much more than words; they are people's thoughts and experiences, which should be represented accurately and with care. I learned that if I was getting too "wordy" in my writing, I needed to stop and revisit the data. And every time, there it was, speaking to me.

APPENDIX A

Individual Interviews #1

Focus: Personal and professional contexts; building relationship

I.   Introductions

My purpose for this research, interests and goals, and background

The participants' teaching stories: influences, roles, goals, values…

II.   Study Details

Format of the study, expectations for myself as the researcher and a participant, and hopes for the study

Participants' questions about the study, reasons for participating, and expectations for themselves as participants

III.   Teaching Platform

What is a teaching platform?
What do you believe should be included in a teaching platform?

Purpose of platform and topics to be discussed in detail at the second interview (see Appendix B)

IV.   Reflection

What is reflection?
As a teacher, do you reflect? Why? How?

Definition, purpose, format, timeline

Topic for reflection for the upcoming week: Thoughts regarding your beliefs about teaching and learning, as well as what prompted those thoughts.

APPENDIX B

Teaching Platform

- Aims of education/Purposes of schooling (the three most important)

- What is the significance of school for students?

- What does it mean to learn?

- The definition of effective teaching

- What is the role of the teacher?

- What is the role of the student?

- What should be the content of the curriculum?

- What should be assessed/measured?

- The ideal school

APPENDIX C

Individual Interviews #2

Focus: Teaching and learning beliefs; action research; reflections

I.   **Discuss journal reflections** (since the first interview) regarding teaching and learning beliefs

II.   **Teaching platform**

Discuss each teaching platform topic (see Appendix B)

Transcripts of the platform discussions will be provided to the participants prior to the first group meeting

III.   **Action research**

What are some of your current teaching concerns? Why?
What does the term *action research* mean to you?

During the next few weeks, select a topic and develop a game plan (to share at the first group meeting)

Topic for reflection for the next few weeks: The decision making involved in selecting an action research topic and organizing a game plan

IV.   **Upcoming group meeting**

Purpose and format
Active listening and reflective questioning

APPENDIX D

Teaching Platforms and Teacher Research
Group Meeting #1

AGENDA

I.   The Meeting – Purpose, format, and goals

II.   Round 1: Teaching Platforms (each teacher in turn)
- A clarification question from me
- Reflections from you – key points from your TP; any changes you made to the summary; the accuracy of (or lack thereof) of the motto; the process of creating a TP
- Feedback from the group

III.   Round 2: Presentations of Action Research Projects (each teacher in turn)
- The topic you have selected and why
- The data you have or need
- Questions and feedback

IV.   Next Steps
- Classroom observations (pre- and postconferences)
- Written reflections – Comparisons of behaviors and beliefs
- Schedule group meeting #2 of 3

Teaching Behaviors and Teaching Beliefs
Group Meeting #2

AGENDA

I.   Action Research

- Discuss Nolan and Hoover's (2011) description of action research (and related thoughts concerning teaching, learning, professional context, and this type of project/study)

II. Round 1: Presentations of Action Research Projects (each teacher in turn)

- An explanation of the topic you have selected and why, and the data you have or need

- An update on the current situation, how it is now the same or different since we last met, and why you perceive that to be the case

- A detail about a specific decision that you have made regarding your topic, why you made that decision, and the impact of that decision

- A reflection regarding your topic

- Your next steps for your selected action research topic

- A question for the group, along with questions and feedback from the group

III. Next Steps

- Classroom observations (pre- and postconferences)
- Written reflections – Comparisons of behaviors and beliefs
- Schedule group meeting #3 of 3

Teaching Behaviors and Teaching Beliefs
Group Meeting #3

AGENDA

I.   Round 1: Presentations of Action Research Projects (each teacher in turn)

- An update on the current situation, how it is now the same or different since we last met, and why you perceive that to be the case

- A detail about a specific decision that you have made regarding your topic, why you made that decision, and the impact of that decision

- A reflection regarding your topic

- Your plans for continuation

- A question for the group, along with questions and feedback from the group

II.   Round 2: Reflections about the study (group discussion)

- Group meetings
- Journal reflections
- Overall experience

III. Next Steps

- Final Interviews
- Participants' review of case study narrative summaries

APPENDIX F: TEACHING PLATFORM SUMMARIES

Elena's Teaching Platform: *My Beliefs* about this thing called "**SCHOOL**"

I BELIEVE that…

- The purposes of school are…
  1. To teach students to be good citizens
  2. To teach content
  3. To teach students about relationships

- The significance of school for students is…
  1. To learn how to act around people
  2. To find their interest, for the future

- The role of the student is to come to school and want to learn.

- The role of the teacher is to create a safe environment; be a resource, facilitator, guide, and role model; and instruct.

- To teach is to allow students to explore, question, and discover, and to provide repetition and feedback.

- To learn is to gain knowledge.

- The curriculum should consist of "subject" content necessary for survival in the "real world", as well as skills for solving problems and thinking logically.

- The taught curriculum and persistence are the things that should be assessed/measured.

- The ideal school would consist of eager students who want to learn.

- School should embody a safe, learning culture. It should be a place where students feel comfortable to learn.

Got EAGERness???

The Importance of Being Eager

Henry's Teaching Platform: *My Beliefs* about this thing called "**SCHOOL**"

I BELIEVE that…

- The purposes of school are…
  1. To teach students how to learn
  2. To encourage lifelong learning

- The significance of school for students is…
  1. To become prepared to be productive and successful adults
  2. To learn how to work
  3. To learn how to interact with other people and have good relationships
  4. To learn responsibility

- The role of the student is to be prepared and committed to learning.

- The role of the teacher is to inspire a commitment to learning, and help and encourage students to discover their passion.

- To teach is to share…your knowledge, passion, and enthusiasm; and to open eyes and minds by sharing what you have and who you are.

- To learn is to be able to do for yourself.

- Through a well-rounded curriculum of core and creative subjects, students should be provided opportunities to find their passion, and the curricular focus should be on teaching students how to think and how to learn.

- The things that should be assessed/measured are work ethic, behavior, interaction with peers, and lastly, the final product.

- The ideal school would consist of a safe environment that promotes learning in a challenging and productive manner, and that helps students find a path for a positive and productive future.

- School should embody a positive, encouraging culture.

FIND your PASSION and SHARE it!!!

Lilian's Teaching Platform: *My Beliefs* about this thing called "**SCHOOL**"

I BELIEVE that…
- The purposes of school are…
  1. To inspire students to want to learn
  2. To support students to find their niche (what makes them happy)
  3. To educate and build confidence

- The significance of school for students is to "open up doors" so that students can be happy and successful, productive citizens.

- The role of the student is to learn to be responsible and be willing to participate.

- The role of the teacher is to support students in learning their role, to guide them to make good decisions, to inspire, and to love them no matter what.

- To teach is to help students to become problem solvers.

- To learn is to acquire information to make decisions with, and be the best you can be and be happy.

- The curriculum should consist of learning how to read, write, and use arithmetic; inspiring students to be interested in finding information; finding students' interests and going into depth with what they want to be; and connecting all of the "subjects" in ways relevant to students' interests that are useful and applicable to life.

- Through projects and performance assessments, *growth* in learning is what should be assessed/measured.

- The ideal school would start and end later, support teachers to share ideas and collaborate about best practices, function as a "village" working together to help children be successful, and incorporate hands-on technology. Students would have freedom to express themselves, find their interests, and be supported in building on those interests and finding their "awesomeness."

- School should embody an enjoyable and professional learning culture. It should be a place where students' interests are sparked, and they gain confidence in themselves.

On BEYOND Bubbles!!!

APPENDIX G

Professional Development (PD) / Teacher Research (TR)
"Prompt" Page

From the *Handbook of Action Research* (Reason & Bradbury, 2006, p. xxv):

"First person action research/practice skills and methods address the ability of the researcher to foster an inquiring approach to his or her own life, to act awarely and choicefully, and to assess effects in the outside world while acting. First person research practice brings inquiry into more and more of our moments of action – not as outside researchers but in the whole range of everyday activities."

Please think about and answer the following questions (and please feel free to answer them in any format you prefer):

1.) What are some of your current teaching concerns that are specific to your classroom instruction, environment, or other?

2.) What topic would you most like to focus on for improvement right now? Why?

3.) What data do you have, or do you need to gather, in order to plan for improvement in your selected topic?

4.) What questions, if any, do you have about these questions, and what support do you need, if any, to answer them?

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