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Dedication

This dissertation is dedicated to my daughter Promise Victoria Singleton and to my past, present, and future students. You motivate me each day to wake up bright and early, to give my personal best, and to inspire you to do your best. I believe that nothing is too hard for you and that you have been equipped with the power to learn and to lead. I believe in you! No excuses. No short cuts. No limits.

You are my inspiration!

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ABSTRACT

THE ENGAGEMENT OF REFLECTIVE PRACTICE AMONG INSTRUCTIONAL LEADERS

The purpose of this study was to describe the engagement of reflective practice among school leaders utilizing a qualitative case study methodology. While there have been studies conducted about school leaders and reflective practice, there was an unparalleled amount in comparison to the extensive research on teaching and reflective practice. Thus, much was still unknown about how school leaders engaged in reflective practice and implications for teaching and learning. Using purposeful sampling (Patton, 2002), I chose school leaders who were perceived as effective instructional leaders. This domain of leadership was highlighted because it focuses on a leader who promotes conditions for improved teaching and learning. Reflective practice literature in education stems from the domain of teaching and learning. The primary research question is, "How do elementary school administrators who are perceived as effective instructional leaders engage in reflective practice to create conditions for improved teaching and learning?" In order to inform the research question, multiple sources of data were used. This study employed in-depth interviews, a focus group, an open-ended questionnaire, and written documents. In summary, dominant themes emerged and several sub-themes emerged that depict how school leaders engage in reflective practice.

CHAPTER I

REFLECTIVE PRACTICE AND INSTRUCTIONAL LEADERSHIP

Introduction

In times of school reform, educational leaders seek effective methods to promote school improvement. Improving student achievement is a national priority. For example, federal and state accountability policies have largely targeted teaching quality as a mechanism to improve student and school performance, resulting in principals spending additional time monitoring and creating conditions for improved teaching and learning. It is well accepted that teachers matter for achievement; less clear are the most effective strategies to improve teaching quality (Nye, Konstantopoulus, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004; Sanders & Horn, 1998). Reflective practice and instructional leadership are two practices adopted by many school leaders as a means to improve teaching and learning. Reflective practice is a rigorous disciplined way of thinking that is linked to professional growth and improvement (Dewey, 1933; Hatton & Smith, 1995; Osterman, 1991; Rodgers, 2002; York-Barr, Sommers, Ghere, & Montie, 2006). Instructional leadership is a leadership practice that emphasizes the leader's role in creating conditions for improved teaching and learning (Marsh, 2002; Spillane, 2004). Instructional leadership can lead to pedagogical improvement and increased student learning by engaging in conversations with teachers about instruction and facilitating reflection and professional growth (Blasé & Blasé, 1998, 1999; Bossert, Dwyer, Rowan & Lee, 1982; Edmonds, 1979; Hallinger & Murphy, 1985; Murphy, 1990; Weber, 1996).

Reflective practice and instructional leadership appear to be promising practices for school improvement.

The concept of reflective practice has been around for decades with its roots grounded in the works of John Dewey (1933) and Donald Schon (1987). Dewey viewed reflective practice as a rigorous and disciplined way of thinking about work; whereas, Schon viewed it as experiential and context-based learning (York-Barr et al., 2006). The early foundation of reflective practice as expressed by Dewey and Schon is visible in practices like professional learning communities (Dufour & Eaker, 1998; Fullan, 2000; Hord, 2009; Morrissey, 2000), action research (Argyris & Schon, 1974; Carr & Kemmis, 1986; Dana & Pitts, 1993; Elliot, 1988), and instructional supervision (Acheson & Gall, 2003; Garman, 1990; Glatthorn, 1987; Glickman, 1985; Okeafor & Poole, 1992). Instructional leadership, like reflective practice, is a familiar practice to school leaders. Although instructional leadership has received much attention over the last decade, the responsibility of principals to be instructional leaders is not a new concept. A principal, at the inception of the role, was viewed as the principal teacher or instructional leader. Rossow (2000) acknowledged, "With the rise of industrialization and the development of scientific development techniques, the term principal teacher became principal and the job took on a management focus" (p. 3). Today, with increasing external accountability pressure, the principal is being called to be an instructional leader.

In summary, reflective practice and instructional leadership have ties to improvement (Blasé & Blasé, 1999; Marsh, 2002; Spillane, 2004; York Barr et al., 2006). Instructional leadership and reflective practice both promote the study of teaching and learning in schools. Reflective practice is a process heavily cited in teaching and learning

literature and is closely linked with instructional improvement. Reflective practice is a disciplined, rigorous way of thinking about practice. Consequently, viewing reflective practice as a critical component of instructional leadership can help further define effective behaviors of instructional leaders.

Statement of the Problem

The current era of educational reform has witnessed a departure from strictly managerial responsibilities of principals. With persistent calls for school improvement and high stakes accountability models, principals must remain focused on instructional improvement. More recently, there has been a shift towards reflective practice being an important component to improving teaching and learning (NBPTS, 2010; Blasé & Blasé, 1999; York Barr et al, 2006). Consequently, the use of reflective practice among school leaders is on the rise. The emphasis of reflective practice comes at a time when demands and pressures placed on principals to increase student and school performance is at an all-time high. Principals respond to a myriad of issues on a daily basis and are charged with decision making that has consequences for teacher and student performance. Coombs (2003) claimed, "More than ever, principals must know and consider their intentions before taking action in an environment where they will inevitably be judged by these actions" (p. 1). With increased expectations placed on principals, reflective practice would seem to be a valuable source of information for principals to draw on to improve their leadership.

Although there is literature that suggests the need for and benefit of reflective practice for principals, the literature is lacking in actual examples of how effective instructional leaders engage in reflective practice. Studies exist on reflective teacher

practice (Calderhead, 1991; Cranton, 2004; Griffin, 2003; Hatton & Smith, 1995; Kember, Leung, Jones, Loke, Mckay, Sinclair, Tse, Webb, Wong, Wong, & Yeung, 2000; Lai & Calandra, 2009; Phan, 2008; Pultorak, 1996; Putnam, 1991) and reflective practice in other professions (Graham & Megarry, 2005; Mamede & Schmidt, 2004; O'Connor, Hyde, & Treacy, 2003; Ruch, 2002; Schmieding, 1999; Teekman, 2000), but little empirical evidence can be found in regards to principals. At a time when school leaders are called to be instructional leaders, as well as to manage other responsibilities of the role, it is important to understand how principals engage in reflective practice and how their reflective practice is influenced by individual and contextual factors.

Purpose of the Study

The purpose of this study was to explore how elementary school leaders who have been perceived as effective instructional leaders engage in reflective practice to create conditions for instructional improvement. Reflective practice is a topic among educators that is increasingly gaining respect as a means to improve teaching and learning. However, more research on specific characteristics and processes employed by principals is needed to understand the challenges of being a reflective practitioner (McNiff, 1995). As McGriff (1995) argued, "Much research literature emphasizes the need for reflection but is impoverished in actual examples" (p. 86). Consequently, the study provides examples of how administrators who were perceived as effective instructional leaders engaged in reflective practice to create conditions for improved teaching and learning. The study was guided by the question: How do elementary school principals who are perceived as effective instructional leaders engage in reflective practice to create conditions for improved teaching and learning? Sub questions included: Among the

participants, what is the object of their reflection as they create conditions for improved teaching and learning? What factors facilitate reflection? What factors served as barriers to reflection?

Significance of the Study

In reflective practice literature on leadership, researchers mentioned the complexity, busyness, and uncertainty involved in leading schools or organizations (Coombs, 2003; Day, 2000; Stoeckel, 2007). These studies explored varying aspects of reflection among school leaders. Often cited were types of reflection that leaders engaged in and their benefits of reflection. In subsequent paragraphs, I discuss studies conducted on reflective practice and school leaders and how this investigation will add to the literature.

Coombs (2003) sought to compare and contrast principals' perspectives of reflective practice with the literature. The purpose of his study was to answer the following questions: What is reflective practice? What is the nature of reflective practice among select school administrators? On what basis do select school administrators choose to reflect? To what extent is reflective practice among select school administrators a function of their values, training and experience? Findings within his study suggested that principals needed to consciously create conditions and to use processes that enhance their ability to reflect. They needed to consciously think about their experiences because learning does not automatically come from experience (Filby, 1995). Coombs (2003) argued that school leaders need to consider how their training, experience, and values shape their reasoning and subsequent actions. Similar to Coombs, this study gained the perspective of principals; however, this study focused on how principals engaged in

reflective practice within their instructional leadership role. Coombs' work does not focus on a specific leadership domain such as instructional leadership and the evidence of reflective practice within that domain.

In another study, Day (2000) had the idea that good leadership in successful schools had a relationship with leaders who engaged in reflective practice. His study identified five types of reflection that all 12 principals engaged in: holistic, pedagogical, interpersonal, strategic, and intrapersonal. Pedagogical reflection related to the leader's role as the standard-bearer for teaching and learning. The emergence of this theme confirmed that principals do engage in reflection within the instructional leadership domain but there still has not been an in-depth study describing how they engage in reflective practice within their instructional leadership role, the object of their reflection and facilitating factors.

Lastly, Blasé and Blasé (1999) conducted a study about principals' instructional leadership and teacher perceptions. The findings within their study revealed two major themes comprising 11 strategies of instructional leadership. Blasé and Blasé (1999) developed a Reflection Growth Model of effective instructional leadership from their study. Blasé and Blasé noted that their study did not gain detailed information about the context of the particular schools. They suggested engaging in a case study to conduct in-depth interviews and observations to better understand how the school environment shapes reflection. Similar to Blasé and Blasé (1999), instead of taking a general approach and studying different tasks of principals, this study narrowed the focus to the instructional leadership behaviors (e.g., Blasé, 1993; Blasé & Blasé, 1994; Blumberg & Greenfield, 1986; Leithwood, 1994; Murphy & Louis, 1994; Parkay & Hall, 1992). The

participants for this study were principals who have been identified by teachers to be effective instructional leaders. However, this study will explore from the principal's perspective, how they engage in reflective practice within their instructional leadership role.

Summary

Overall, a study about how school administrators engage in reflective practice within their instructional leadership role is vital for many reasons. First, the study will add to the literature on reflective practice and school leadership. While there is a plethora of literature on teaching and reflective practice, empirical studies on instructional leadership and reflective practice are lacking. Consequently, this study focused on reflective practice and leadership in the domain of teaching and learning. This study provides specific examples of how instructional leaders engaged in reflective practice as they created conditions for improved teaching and learning. In addition, the study provides a rich description of processes used by principals to reflect on how teachers and the school environment deliver learning. According to Phan (2008), understanding reflective processes helps one gain understanding and can cultivate growth. Findings of this study may have practical implications for practicing or aspiring school leaders who are interested in learning how to think about improving practices to meet student needs. Additionally, the study identified specific behaviors that could be used as a heuristic for future research on reflective practice for instructional leadership.

Definition of Terms

Instructional Leadership: A leadership domain characterized by principals creating conditions for improved teaching and learning by using a broad-based approach of

talking to teachers and integrating reflection and growth to build a school culture supportive of the individual and collective study of teaching and learning (Blasé & Blasé, 1999; Marsh, 2002; Spillane, 2004).

Reflective Practice: A process which allows educators to think systematically about teaching and learning (Dewey, 1933) and to learn from experience (Schon, 1987).

Principal/Administrator: Within this study, principal and administrator are used interchangeably to describe a school leader.

Overview of the Dissertation

This study is organized into five chapters. Chapter I introduces the research topic, The Engagement of Reflective Practice among Instructional Leaders. Chapter II provides a review of literature on reflective practice and instructional leadership. Chapter III provides details about the research methods. The findings are detailed in Chapter IV. Finally, Chapter V provides a discussion that includes implications and recommendations for further study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The focus of this literature review is on understanding the meaning of reflective practice and instructional leadership. The literature reviewed provides a synthesis of the scholarship of these two constructs. As argued by Boote (2005), "A thorough, sophisticated literature review is the foundation and inspiration for substantial, useful research" (p. 3). Literature was reviewed in order to understand the meaning of reflective practice and instructional leadership, as well as the theoretical properties of each construct. The meaning and nature of reflective practice is explicated first. Next, evidence on reflective practice in various professions is reviewed. The review concludes with a definition of instructional leadership and evidence of its practice.

Reflective Practice

Reflective practice has often been seen as a mystical concept in today's society in which clear, observable, and measureable outcomes are valued. Van Manen (1995) argued, "The concept of reflection is challenging and may refer to a complex array of cognitively and philosophically distinct methods and attitudes" (p. 33). If the definition of reflection is unclear, it is challenging to measure or study the concept. Additionally, an ambiguous definition makes it difficult to differentiate reflective practice from other types of thinking, to assess its utility for effective performance, and to study its nature and function (Rodgers, 2002). In spite of different uses of the term and its abstraction, reflective practice does have distinguishable characteristics and properties.

Reflective practice is a complex concept that can be traced back to Dewey (1933) and more recently to Schon (1987). Dewey's views emerged from the Progressive Era when scientific advances were shaping education and social science. Consequently, Dewey viewed reflection as following the scientific process of inquiry (Fendler, 2003; Rodgers, 2002; Sparks-Langer, 1991; Zeichner & Liston, 1987). Schon's theory of reflective practice emerged about half a century after Dewey with an emphasis on context-based experiential learning. York-Barr (2006) argued that Schon's ideas on reflective practice "held strong appeal for educators in the 1980s, when validation of knowledge gained from professional practice served to support efforts aimed at professionalizing teaching" (p. 4). Together, the thoughts of Dewey and Schon serve as a conceptual foundation that scholars have drawn on to define and understand reflective practice across different professions. For the purpose of this study, reflective practice is defined as a process which allows educators to think systematically about teaching and learning, (Dewey, 1933) and to learn from experience (Schon, 1987). Systematic thinking and learning from experience, the two primary properties of reflective practice, are complex processes that need to be explained in more detail.

Systematic Thinking

The notion of systematic thinking comes from Dewey's study of reflective thinking (1933). Dewey (1933) defined reflective thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the conclusion to which it tends" (p. 9). Consistent with the scientific process of inquiry, the essence of Dewey's reflective thinking definition is based on objectively testing ideas against evidence to confirm or disprove hypotheses. This view

of reflection emphasizes not only a rigorous thought process but also the importance of using existing knowledge for arriving at a clear understanding of phenomena (Fendler, 2003; Rodgers, 2002; Sparks-Langer, 1991; Zeichner & Liston, 1987). A synthesis of Dewey's beliefs on reflection was captured by Rodgers (2002) who argued that Dewey emphasized four characteristics of reflection: Reflection is a meaning making process; reflection is a systematic, rigorous, and disciplined way of thinking; reflection needs to happen in a community; and reflection requires a set of attitudes that value self and others (p. 858). These four characteristics of reflection present a more nuanced picture of reflective practice and identify the purpose, cognitive process, social influences, and individual determinants of systematic thinking. Each characteristic is described in detail below.

Purpose: Meaning making process. The purpose of reflection is to construct knowledge and to develop a deeper understanding of experiences and phenomena. Individuals construct meaning as they interact with the world around them (Rodgers, 2002). Meaning making is similar to a constructivist epistemology in that both are based on the belief that knowledge is gained as individuals construct meaning through social interactions. Interactions consist of social exchanges among individuals and the experiences of individuals as they interact with the physical world. To illustrate, Dewey (1938) explained how the conventional belief in the 17th century that the world was flat changed after the voyage of Columbus. In this example, individuals changed their thinking about the world based on their interactions with others and the interactions people experienced with the physical environment. There are similar examples in education as well. It was once thought that intelligence was one-dimensional until

Sternberg (1977) and Gardner (1983) discovered that individuals possess multiple intelligences. Now, the concept of multiple intelligences is widely accepted as more people embrace the theory. The point is that people are influenced by their thoughts and experiences, and it is not until thoughts and assumptions are challenged that one truly engages in reflective thinking.

In short, the purpose of systematic thinking is to make sense of experiences and realities. For this to occur, reflection needs to be a continuous learning process during which individuals learn from experiences, prior knowledge, and from the experiences of others. Such a process allows one to create meaning and gain a deeper understanding of phenomena (Dewey, 1938). As individuals create meaning from their experiences, new knowledge and understanding emerge.

Cognitive Process: Rigorous, and disciplined thinking. According to Dewey (1933), reflective thinking consists of cognitive processes that move from states of perplexity, questioning, hypothesizing, and investigating that serve to confirm or disconfirm beliefs. Consequently, reflective thinking is problem based and follows a rigorous process. As a result of a problem, various problem-solving activities take place in order to find an effective solution. Thinking systematically about an issue or problem allows practitioners to make mindful, rather than mindless, decisions (Rivlin, 1971).

Reflective thinking also involves practitioners using existing knowledge that has been derived from scientific inquiry. Schon (1987) referred to existing knowledge as theory. Mezirow (1991) referred to the term *thoughtful action* as he discusses the practitioner's use of existing knowledge. Thoughtful action is a cognitive process. Thus, reflective thinking involves the practitioner employing existing sources of data to test and

confirm hypotheses. However, according to Dewey (1933), "Data cannot provide the solution but can suggest a solution" (p. 10). Dewey (1933) believed in testing ideas to help one come to a solution. Ideas that are formulated are the result of experiences that one can use for future practice. Experiences serve as sources of knowledge that are cognitively processed as individuals think systematically about their practice. Quite simply, systematic thinking is a cognitive process that involves a disciplined examination of experiences and future actions.

Social influences: Community interactions. Community interactions, as a property of reflective practice, highlight the importance of sharing and learning from others in a community of practitioners (Rodgers, 2002). Learning in a community of practitioners affords opportunities to consider issues through the experiences of others as well as to interpret experiences collectively. Dewey (1944) discussed the importance of social interactions for reflective practice by emphasizing the contribution of different perspectives on learning. In other words, reflective practice occurs when one can share his or her thoughts with another to gain a different perspective on an issue or problem. Furthermore, social interactions serve as an accountability system to foster greater responsibility for learning. Stoeckel and Davies' (2007) study on reflective leadership confirms the importance of reflection occurring within a group. Additionally, Wilson (1994) and Leithwood and Steinbach (1995) highlighted the significance of social interactions for learning from experience and developing expertise. Overall, ideas that are shared and examined by others can foster individual and group learning.

Education has embraced the power of community interactions to reform teaching and learning (York-Barr et al., 2006). Learning communities in schools emphasize the

value of shared inquiry for enhancing professional capacity (Dufour & Eaker, 1998; Fullan, 2000). According to Shulman (2004), collaboration among a community of learners is essential for quality teaching. Within learning communities, collaboration is embedded into the school culture. Clarke (1996) stated, "Organizational cultures which stress collaboration as a way of working are likely to encourage reflective practice" (p. 179). It is often argued that learning is most effective when the learner is actively involved in the learning process and when it takes place as a collaborative, rather than an isolated activity (Brown, Collins, & Duguid, 1989a, 1989b; Prestine & LeGrand, 1991; Osterman & Kottkamp, 1993). Consequently, establishing a collaborative culture is essential to community interactions where sharing and learning from each other is the norm. Fundamental to cultivating a collaborative culture is trust.

Trust is vital to community interactions and, more specifically, to a collaborative culture. According to Osterman and Kottkamp, "Trust is perhaps the essential condition needed to foster reflective practice in any environment" (1993, p. 45). When trust levels are high, people are apt to be open about areas of improvement, a characteristic that allows for greater insights into practice. However, working collaboratively can pose a personal risk for many and can serve as a barrier to engaging in reflective practice. Without trust, there is no social support for cooperative interactions and risk taking is constrained (York Barr et al., 2006). Empirical articles about reflective practice suggest that learning takes place when the practitioner has friends or colleagues whom he or she can trust. Trust in these instances motivates an individual to engage in reflection with others (Coombs, 2003; Stoeckle, 2007). In short, trust is crucial to fostering community interactions within the professional context.

Individual determinants: Attitudes. Attitudes suggest the importance of a set of values and beliefs to engage in reflection. Dewey argued that one's attitude could serve as a barrier or avenue to learning (Rodgers, 2002). Important attitudes underlining reflective practice include wholeheartedness, directness, open-mindedness, and responsibility (Rodgers, 2002). Wholeheartedness refers to a commitment to practice. Directedness refers to a person's confidence that is derived from successful experiences and making connections to other elements in his or her context. Open-mindedness is a willingness to consider alternative perspectives, combined with an acceptance of the possibility of making an error in judgment (Dewey, 1933). The last attitude is responsibility. Dewey (1933) argued that intellectual responsibility means considering the consequences of projected actions, knowing that action is the result of one's thoughts or sense making. In other words, reflective thinking requires a person to think rigorously about subsequent actions and take responsibility for the consequences of his thinking. Good thinkers are aware of their attitudes and emotions and have the ability to use them to their advantage (Rodgers, 2002). Overall, as a person makes sense of the world and formulates ideas, he must act responsibly and stand up for what is consistent with his beliefs.

In summary, the aforementioned characteristics of reflection define systematic thinking by its purpose, cognitive process, social influences, and individual determinants. Rodger's (2002) synthesis of Dewey's work aids in clarifying reflective practice by distilling it to cognitive practices that distinguish reflective practice from mere speculation. Thus, systematic thinking is a meaning-making process; it is a rigorous, disciplined way of thinking; it needs to happen in a community; and it requires a set of

attitudes that value self and others (Rodger, 2002). Next, the second construct of reflective practice, learning from experiences, will be explained.

Learning from Experience

The second property of the reflective practice definition is learning from experience. Schon's (1987) thought of reflective practice focused on validating knowledge by learning from professional experiences. Schon's view of reflective practice emphasized context-based experiential learning. Schon argued that there should be a balance between the use of theory and practice. The balance between theory and learning from practice is a topic of discussion in education. Is theory more valuable than practice? Can experience be a credible source of intellectual knowledge? It is said that theory does have value because it provides the most up-to-date, empirically studied knowledge that a person possesses about a specific phenomenon (P. Forsyth, Personal Communication, summer 2009). Like theory, experience can lead to new insight and understanding about phenomena. The primary difference is the generalization of theory. Instead of judging theory or practice by their respective strengths and limitations, Schon (1987) believed that theory and practice knowledge should be integrated in experiential learning to inform professional practice. Types of experiential learning are explained next.

Knowing-in-action, reflection-in-action, and reflection-on-action are three fundamental concepts that describe Schon's view of reflective practice as based on learning from experience. A fourth type of reflection, reflection-for-action, emerged as an extension of Schon's work (Greenwood, 1993; Butler, 1996; McAlpine & Weston, 2000). The four types of reflective practice identify common ways experiences are systematically processed by individuals and incorporated in present and future action.

The common thread that ties the four types of reflection together is the emphasis on the professional practitioner and context-based experiential learning.

Knowing-in-action. Knowing-in-action is based on the competence that practitioners display in practice (Schon, 1987). Often, display of competence through practice can seem to be unconscious. Many professionals make decisions or take actions without being able to describe the knowledge behind their actions (Schon, 1987). In the routines of life, people often begin to act in an automated manner. Automatic behaviors have much in common with habit. Hainer (1968) believed that people often know more than they are able to articulate. Polanyi (1962) referred to this unconscious type of action as tacit knowledge, where reaction is second nature and the behavior appears distinct from cognitive reasoning. Overall, most work of experienced professionals reflects routine behavior associated with knowing-in-action (Kember et al., 2000).

According to Kember et al. (2000), knowing-in-action is also referred to as habitual action. Habitual action is defined as "an activity that is performed automatically or with little conscious thought" (p. 383). For example, riding a bike, using a keyboard, working on an assembly line, and performing a routine procedure are habitual, repetitive activities. What happens when the circumstance becomes unpredictable and routines are shifted? Can professionals still function with skill in an environment that is not systematic? In today's world with ubiquitous information and new problems, one cannot rely solely on knowing-in-action. Problems are not always predictable; there are often surprises that present themselves unexpectedly.

In short, knowing-in-action refers to being so familiar with a way of doing things that a person can do it spontaneously without thinking (Schon, 1987). However, when

practitioners cannot rely on spontaneous intelligence because of an unexpected situation or surprise, knowledge for action needs to come from a different cognitive source. Practitioners can respond to uncertainty by dismissing it, or they may choose to engage in reflection (Schon, 1987). When practitioners are burdened with new ways of handling similar situations and increased workloads, they no longer rely on the basic level of learning from experience, knowing-in-action. In times of change and challenge, practitioners are apt to engage in reflection-on-action, reflection-in-action (Schon, 1987), and reflection-for-action (Greenwood, 1993; Butler, 1996; McAlpine & Weston, 2000).

Reflection-on-action. Reflection-on-action allows practitioners to think back on experiences to discover how actions may have contributed to an unexpected or undesired outcome (Schon, 1987). This type of reflection allows one to evaluate past experiences for the purposes of taking different actions in the future. One may think about past successes and/or failures and strategize about how to respond differently. Reflection-on-action refers to thinking about experiences to improve future actions (Schon, 1987). Overall, reflection-on-action allows practitioners to learn from past experiences to improve future outcomes.

Reflection-in-action. Reflection-in-action allows practitioners to think in the present to change immediate circumstances (Schon, 1987). Schon argued "We can think about something while doing it" (Schon, 1983, p. 54). Thinking while doing serves as a way to reshape actions in the midst of a situation (Schon, 1987). The cognitive sequences of reflection-in-action include knowing-in-action (a routine action that produces a surprise), choosing to reflect-in-action (which questions a practitioner's knowing-in-action), and

experimenting in the moment (Schon, 1987). Reflecting-in-action allows practitioners to monitor and adjust on the go to make decisions that will affect the immediate outcome.

Reflection-for-action. Reflection-for-action entertains reflection on future situations (Greenwood, 1993; Butler, 1996; McAlpine & Weston, 2000). Greenwood (1993) recognized flaws in Schon's idea of reflective practice happening solely in and on action and argued that there was no attention given to reflection before an action occurred. Adding to Schon's thought on reflection-in and on action, Greenwood recognized the need for practitioners to be reflective before (for), during (in), and after (on) action. Reflection-for-action has implications for future behavior (York Barr, 2006). Past experiences can aid in thinking about future actions. Reflection-for-action refers to thinking about future behaviors for achieving a desired outcome. Next, is a review of contextual factors that influence reflection-on-in-and-for-action.

Contextual Factors

Contextual factors include the formal and informal environments that influence reflective practice. The formal context consists of rules, procedures, and structures that are observable in written documentation, whereas the informal context consists of implicit understandings within the social structure, such as behaviors, interactions, and norms (Lazzarini, Poppo, & Zenger, 2001). The informal organization evolves naturally with the work environment. Two contextual factors affecting reflective practice include autonomy and time. Autonomy and time are both shaped by the formal and informal contexts in which practitioners work.

Autonomy. The different types of reflection, on-, in-, and for-action, refer to a practitioner's ability to make decisions before, during, and after action. Essential to

reflective practice is autonomy. "Autonomy means self-legislation, or more generally, self-rule or self-governance" (Bloser, Schopf, & Willaschek, 2009, p. 2). Furthermore, autonomy refers to one's ability to make decisions based on his or her own reasoning (Mele, 1995). Consequently, autonomy in a professional context is essential for the reflective practitioner. Because reflective practice is a meaning-making process that allows practitioners to question their beliefs and practices, individuals need autonomy to make decisions and take action that can change their professional context. Autonomy fosters responsibility in practitioners by allowing them to take ownership of their learning by controlling factors within their spheres of influence. In addition, autonomy allows practitioners to be more mindful about their actions and take responsibility for the consequences of decisions. The works of Brandt (1998), Evans (1987), and Merriam (1993) suggested that educators should be seen as responsible professionals who have the ability to identify and cultivate their own personal growth. Overall, professional autonomy is an essential contextual factor that allows practitioners to learn from experience.

Time. Empirical articles on reflective practice suggest that time is an important factor in reflective practice because in order for one to learn from experience, there must be time to reflect on past and future actions and strategies to achieve expected outcomes (Coombs, 2003; Edwards, 1999). Learning from experience involves a temporal process whereby reflection leads to action. The time between reflection and action has implications for when or if practitioners have time to reflect on practice. Most studies suggest that individuals have to make time for reflection (Coombs, 2003; Edwards, 1999; Virmani & Ontai, 2010). Amulya (2004) suggested that there were diverse ways that

reflective practice could be structured. She stated, "Reflection can be practiced at different frequencies: every day, at long intervals of months or years, and everything in between" (p. 2). McGregor and Salisbury (2001) and Stoeckel and Davies (2007) suggested that setting aside a regularly scheduled time to reflect on experiences can be beneficial to learning. Overall, the literature on reflective practice highlights the importance of having time for reflection to learn from experiences. Without time for reflection, experiences are not likely to enhance knowledge or understanding (Schon, 1987; Filby, 1995; Maxwell, 2008).

In summary, knowing-in-action, reflection-on-action, reflection-in-action, and reflection-for-action account for different ways individuals learn from their experience. Learning from experience may take the form of routine action, thinking on past behaviors, thinking while doing, or thinking ahead to a future situation. As previously explained, knowing-in-action relates to professionals who routinely conduct their professional responsibilities with competence and skill. When knowing-in-action is challenged by an uncertain event or challenge, reflection-on-action or reflection-in-action may be employed. Reflection-on-action enables an individual to think back on experiences and consider what could have been done differently to change the outcome. Reflection-in-action enables individuals to make changes to the immediate outcome by allowing for reflection during action. Experienced professionals often possess the ability to reflect-in-action; they can monitor and adjust for the purpose of improving performance (Schon, 1987). Reflection-for-action is future oriented; that is, individuals think ahead about future actions. Practitioner autonomy and time are critical contextual supports for learning from experience. Overall, Schon's three types of reflective practice

and Greenwood (1993) and Butler's (1996) reflection on future actions describe different ways individuals learn from experiences.

Summary

In conclusion, reflective practice is defined as a process that allows educators to think systematically about teaching and learning (Blasé & Blasé, 1999; Dewey, 1933) and to learn from experience (Schon, 1987). Systematic thinking is a meaning making process, guided by rigorous and disciplined thinking, and shaped by community interactions, and personal attitudes (Dewey, 1933; Rodgers, 2002). The above characteristics of systematic thinking provide a lens through which to view reflective practice. The framework will be used to understand how instructional leaders make meaning from their experiences, engage in rigorous and disciplined thinking, and interact with others, as they systematically think about teaching and learning.

Schon's (1987) ideas about learning from experience describe different types of reflection about practice. Reflection types include knowing-in-action, reflection-in-action, reflection-on-action, and reflection-for-action. According to Schon (1987), it is in the midst of the problem where one can truly reflect and find solutions to "non-textbook" problems. Schon (1987) further argues that there must be more than academic rigor or textbook knowledge for practitioners to refer to as they consider the problems of today. Understanding the types of reflection will provide insight into how instructional leaders learn within their practice and the contextual factors that influence their learning. In summary, reflective practice is defined as a process that allows educators to think systematically about teaching and learning (Dewey, 1933, Blasé & Blasé, 1999) and to

learn from experience (Schon, 1987). The purpose of the next section is to identify the use of reflective practice as found in the literature.

Reflective Practice in the Literature

The study of reflective practice can be found in medicine, social work, and education literature to name a few professions. In this section, one to two studies within the above professions are reviewed to describe how reflective practice is carried out and conditions that support reflective practice. The study in medicine describes different ways physicians reflect on their practice and use systematic thinking to treat patients. Studies in nursing provide examples of reflection used by practicing nurses and how nursing instructors teach students to become reflective practitioners. The social work study describes how thinking devices such as a portfolio and social interactions such as having critical friends support reflective practice. Finally, evidence in education situates reflective practice in the context of leading, teaching, and learning. In all professions, reflective practice allows practitioners to think systematically about their practice and learn from experience.

Medicine

In medicine, according to Mamede and Schmidt (2004), reflective practice is seen as a systematic process involving experiential learning. Reflection on experiences is consistent with the definition of reflective practice used in this study. Mamede and Schmidt studied the reflective practice of doctors. Evidence from their study suggested that physicians used deliberate induction, deliberate deduction, testing and synthesizing, openness for reflection, and meta-reasoning to reflect on and improve their practice. Deliberate induction consisted of physicians intentionally considering alternatives to

unfamiliar problems. The term *deliberate* in this case means that physicians consciously generate possible alternative explanations to a patient's health. Reflection on and in action were apparent as doctors faced uncertainty about a patient's health. Deliberate deduction occurred after the physician generated multiple hypotheses to explain the problem and then narrowed the hypotheses to a logical cause by ruling out alternative explanations. Testing and synthesizing referred to the physicians' abilities to engage in hypothesis verification.

Hypothesizing, testing, and synthesizing by physicians reflects the rigorous, disciplined thinking process employed by physicians as they engage in reflective practice. Openness for reflection speaks of the doctor's ability to tolerate uncertainty when faced with unfamiliar problems. Mamede and Schmidt (2004) argued that openness and meta-reasoning were attributes that facilitated reflection. Openness is an attitude that is consistent with the reflective practice definition that builds one's capacity to be reflective. Meta-reasoning consisted of physicians thinking about their own thinking processes and examining their beliefs about a problem (Mamede & Schmidt, 2004). Meta-reasoning is compatible with reflective practice being a meaning-making process.

Mamede and Schmidt (2004) generated a 5-factor model to explain reflective practice to physicians. The model consisted of: deliberate induction, deliberate deduction, testing and synthesizing, openness for reflection, and meta-reasoning (Mamede & Schmidt, 2004). Their model reflects systematic thinking and learning from experience in that, physicians employ rigorous processes to diagnose problems and diagnoses are informed from past experiences with patients. Thus, the Mamede and Schmidt structure of reflective practice that emerged from this study will be used to gain

further understanding about the relationship between reflective practice and the development of expertise in the medical field. As a result, the model may also be used to train new medical students to apply reflective practice.

Nursing

Several studies on reflective practice exist within the field of nursing. Teekman (2000) explored how nurses engage in reflective thinking in their practice. He gathered in-depth information on how a small sample of nurses in New Zealand used reflective thinking within their practice. Teekman's study specifically explored the type of questions nurses asked themselves as they engaged in practice. Results of the study suggested three levels of reflective thinking: Reflective thinking-for-action centered on evidence acted on by nurses. Reflective thinking-for-evaluation focused on creating wholeness of a situation (e.g. creating understanding of being a nurse who was transferred to a new hospital floor) and contributed to the realization of multiple perceptions and multiple responses (e.g. the nurse understanding and evaluating how he/she might respond and behave if someone goes into cardiac arrest) (Teekman, 2000). Reflective thinking-for-critical-inquiry focused on asking for medical support and the ability to give input in the decision making process. The study showed evidence of systematic thinking as nurses employed self-questioning techniques when faced with uncertainty (e.g. performing a new procedure). Learning from experience, specifically, reflection-in-action, was evident as nurses felt obligated to provide care in order to change a situation. Reflection-for-action was evident because of the need for nurses to anticipate patient needs. Overall, this study describes how systematic thinking and experiential learning were practiced by nurses.

O'Connor, Hyde, and Treacy (2003) studied reflective practice and nurse empowerment. The study explored nurse teachers' experiences and perceptions using reflection with their nursing students. The findings suggested that nurse teachers use the terms reflection and reflective practice interchangeably. Nurse teachers perceived reflection and reflective practice as a way of reviewing clinical experiences and a way of valuing, developing, and professionalizing nursing practice knowledge (O'Connor et al., 2003). In another study, Rich and Parker (1995) stated, "Reflection is also perceived as a way of helping nurses to legitimize the utilization of artistic knowledge so that 'soft' approaches to nursing knowledge can take their place alongside 'hard' empirical knowledge" (O'Connor et al., 2003, p. 107). These thoughts are similar to those of Schon (1987) as he discussed the use of technical knowledge and experiential learning. In addition, the study implied that nurse students engage in systematic thinking and learning from experience as evidenced by nurses' reviews of clinical experiences. Overall, the nursing profession readily welcomes reflective practice as a means of developing and gaining expertise in the field by using both theory and practice to guide their actions.

Social Work

Origins of reflective practice in social work stem from Dewey (1933) and Schon (1987). Social work is often characterized as being problem based and context specific (Lam, Wong, & Leung, 2007). Because context varies in the social work arena, empirical knowledge as well as context-based experiential learning is valued (O'Connor, Cecil, & Boudioni; 2009, Ruch, 2010). Graham and Megarry's (2005) studied the use of a social work portfolio to promote reflective practice in aspiring social workers. Evidence from their study supports the importance of social interactions and a supportive

environment for reflective practice. Social work students were able to engage in reflective practice when working in critical friends groups and through peer interactions. Graham and Megarry (2005) stated, "The significance of creating safe environments where peer-learning is facilitated and formalized within teaching and learning programs is slowly gaining recognition in educational settings" (p. 5). The aim of Graham and Megarry's (2005) research was to evaluate the social care work portfolio model. The portfolio model served as a tool for social care students to reflect on and to document their experiences. The portfolio also served as the course assessment. The portfolio allowed students to integrate academics and practice from their field experience. Schon (1987) held strong beliefs about the need for balance between theory and practice.

The findings in this study reflected the implementation of the portfolio over the course of 3 years. The data collection instrument consisted of a questionnaire and focus groups to gain feedback. Findings suggested that students who were consistent to the reflective process as described by the social care portfolio model revealed that they were more aware, saw the big picture and had improved in critical thinking capabilities (Graham & Megarry, 2005). Additionally, peer interaction was a focus within the social care work portfolio model as a way to facilitate reflection. Focus group discussions identified that peer interactions through the use of critical friends was beneficial and challenged social care work students to do things in a different way. "The term critical friend was adopted by Hatton and Smith (1995) to describe the process of peer partnering where learning takes place from sharing reflections and working with each other" (Graham & Megarry, 2005, p. 6). The concept of critical friends is consistent with the

social influence of community interactions found in reflective practice literature and the importance of safe environments and trusting relationships.

Education

Reflective practice has been heavily cited in the field of education as it relates to improvement to teaching and learning. Kember et al. (2002) sought to understand whether students engage in reflective thinking and if so, to what extent. As a result, the purpose of Kember's study was to develop and test a questionnaire to measure the level of reflective thinking among health science undergraduate and graduate students. The findings revealed that habitual action, understanding, reflection, and critical reflection were examples of reflective practice.

Habitual action referred to activity that was done automatically with little or no thought, which is consistent with Schon's concept of knowing-in-action. Understanding referred to using pre-existing knowledge to learn or to make meaning. Reflection referred to validity testing, which entails rigorous, disciplined thinking. Critical reflection is a higher level of reflective thinking that consists of understanding why and entails meaning making and rigorous, disciplined thinking. Overall, Kember's study confirmed Schon's thoughts about knowing-in-action, Dewey's thoughts of reflection being a meaning-making process, and reflection requiring validity testing.

Lai and Calandra (2009) studied the effects of computer-based scaffolds on novice teachers' reflective journal writing. Lai and Calandra stated, "Journal writing has been one of the most widely used methods of reflective practice in teacher education, and it has the potential to develop novice teachers' reflective thinking habits and skills" (2009, p. 2). The purpose of the study was to examine the effects of two selected

computer-based scaffolding tools (question prompts and writing process display) on pre-service teachers' reflective journal writing and to explain how and why the computer-based scaffolds may have had a given effect (Lai & Calandra, 2009). Findings of the study revealed that computer-based scaffolds significantly improved the journal writing of teachers and the length of written artifacts. An explanation of this improvement included the specific requirements conveyed in the scaffolds, the structure of the scaffolds, and the use of the critical incidents to anchor reflective journal writing (Lai & Calandra, 2009). Overall, this study depicted the importance of questioning, which reflects systematic thinking within the reflective process.

Coombs (2003) studied reflective practice and school administrators. The purpose of Coomb's study was to answer various questions surrounding the nature of reflective practice among school administrators. The findings in this study are based on a larger study that was conducted in 1999 in which research field data was collected from six principals. The study compared and contrasted principals' perceptions to the reflective practice literature (Coombs, 2003). Study implications included the need for practitioners to build reflective opportunities into their work and, consciously, to think about their experiences; practitioners should think about their training, experience, and values and ways these shape their reasoning process. Finally, practitioners engaged in reflective practice for various purposes such as to direct, inform or reconstruct their practice (Coombs, 2003). Overall, the foundational ideas of reflective practice involving systematic thinking and learning from experience were apparent within this study.

Day (2000) based his study on the idea that good leadership in successful schools has a relationship with leaders who engage in reflective practice. This study identified

five types of reflection that 12 principals engaged in: holistic, pedagogical, interpersonal, strategic, and intrapersonal. Holistic refers to understanding the vision and the key purpose for school. Pedagogical refers to reflecting on and in action to monitor teaching to reach the vision. Interpersonal relates to building relationships with all stakeholders. Strategic reflection entails research and networking and intrapersonal reflection entails knowledge of self and self-development. Overall, the five types of reflection identified by Day are consistent with the reflective practice definition (2000, p.118). Holistic speaks to reflection as a meaning-making process. Pedagogical reflection relates to the leader's role as the standard-bearer for teaching and learning and the leader's ability to reflect in and on action within that role. The interpersonal and strategic types of reflection reveal that reflection needs to happen within a community of learners. Intrapersonal reveals that reflection aids in personal learning and improvement. Overall, Day's study identified five types of reflection that effective administrators engaged in, and the types of reflection are consistent with the reflective practice definition for this study.

Stoeckel and Davies (2007) studied the reflective leadership of community college presidents. The study sought to answer the question: How do community college presidents experience self-reflection in their leadership roles? The study consisted of both male and female community college presidents. Participants were subjected to in-depth interviews to "understand better how they experienced self-reflection in their own leadership" (Stoeckel & Davies, 2007, p. 895). The primary interview questions include: (a) How do you experience reflection in your role as a community college president? (b) How would you describe your reflective process? Other sources of data were a reflective journal and field notes. The study revealed three major themes: mindfulness, discovery,

and authenticity (Stoeckel & Davies, 2007). Mindfulness entails being conscious and deliberately attentive. Discovery involves self-exploration to gain a better understanding of self. Authenticity involves searching for personal truth that entails aligning actions with values. Overall mindfulness, discovery, and authenticity within this study allow for a greater understanding of the professional context. These findings align with the reflective practice definition of reflection being a meaning making process.

In summary, the studies describe how doctors, nurses, social workers, and educational leaders think systematically in regards to their practice and learn from experience. Within medicine, doctors employed a rigorous, disciplined thinking process to understand patient problems, a method that employed reflection-on-action. In nursing, reflection-in-action was evident as nurses made decisions that affected the immediate situation of patients. The social work study demonstrated how thinking devices like the portfolio can be used to foster reflection about how to merge theory with practice. In education, leaders engaged in reflection within a community of learners and as a way to make meaning of their professional context. The purpose of the next section is to review literature on instructional leadership.

Instructional Leadership

School research suggests that instructional leadership can improve teacher practices and student achievement (Jazzar & Algozzine, 2006). Edmonds (1979) was one of the leading researchers to bring the importance of instructional leadership to the forefront of education with his studies on effective schools in urban contexts. Edmonds' work sheds light on the significance of an educational leader's role in instruction and began a movement toward the principal being an instructional leader. With emphasis

placed on instructional leadership, administrators were challenged to be more reflective on how they could contribute to improved teaching and learning in their schools. The shift away from the principal as manager to principal as the instructional leader required school administrators to learn how to create instructional environments that supported effective teaching.

Almost two decades after Edmonds original work on effective schools, research continues to support findings that the instructional leadership role is essential to an effective school (Halliger & Murphy, 1985; Murphy, 1990; Lezotte, 1994; Weber, 1996; Blasé & Blasé, 1999). More recently, it has been noted that student achievement is more likely to occur in schools with strong instructional leadership (Witziers, Bosker, & Kruger, 2003; Jazzar & Algozzine, 2006). Unlike the section on reflective practice in which the definition was presented first, this section on instructional leadership starts with a summary of qualitative studies on foundational instructional leadership models before describing the definition and model that will be used for this study.

Instructional Leadership Studies

Considering the varying manifestations of instructional leadership, Hallinger and Murphy (1985) conducted a study to develop a research-based definition of the principal's role as instructional leader. They first identified three dimensions of instructional leadership: defining the school mission, managing the instructional program, and promoting a positive learning climate. The three dimensions were divided into 11 categories. First, defining the school mission included framing the school's goals and communicating the school's goals. This referred to principal responsibility to create goals clearly focused on student progress and to clearly communicate goals to

stakeholders. Second, managing the instructional program included supervising and evaluating instruction, coordinating curriculum, and monitoring student progress. This dimension implied that the principal was essential to the school's instructional development. Third, promoting a positive school climate included protecting instructional time, promoting professional development, enforcing academic standards, maintaining high visibility, providing incentives for teachers, and providing incentives for learning (Hallinger & Murphy, 1985).

Murphy (1990) developed an instructional leadership framework based on a comprehensive review of literature on professional development, effective schools, and organizational change. Murphy identified four dimensions within his instructional leadership framework: developing mission and goals, managing the educational production function, promoting an academic learning climate, and developing a supportive work environment. These dimensions are similar to the ones advanced by Hallinger and Murphy (1985). The 4 dimensions were divided into 16 instructional leadership behaviors that provide insight into the role of instructional leadership.

Within Murphy's (1990) instructional leadership framework, developing a mission and goals referred to setting student achievement goals and formally and informally communicating these goals to stakeholders. Managing the educational production function included the principal's management responsibilities (e.g. supervising and evaluating instruction and protecting instructional time). Promoting an academic learning climate included the influence that principals have on the norms (e.g. protecting instruction time, principal visibility, student and teacher incentives, and professional development) within a school. Developing a supportive work environment

refers to using structures and processes to support effective teaching and learning (e.g. safe and orderly school environment, securing resources in support of school goals, and supports for collaboration and/or input from students, parents, teachers). Overall, Murphy's framework was derived from empirical evidence but as Alig-Mielcarek (2003) argues; his model has not been empirically tested.

Whereas the Hallinger and Murphy (1985) and Murphy (1990) frameworks were based on the principal as instructional leader, Weber (1996) advanced a model that was more collaborative and distributed. Weber (1996) like the previous models, identified five essential domains of instructional leadership: defining the school's mission, managing curriculum and instruction, promoting a positive learning climate, observing and improving instruction, and assessing the instructional program. Within Weber's instructional leadership framework, defining the school's mission referred to the instructional leader involving others in the development of a shared mission. Managing curriculum and instruction referred to the instructional leader ensuring that teachers are using research-based practices and have the resources needed to promote student success. Promoting a positive learning climate included establishing high expectations throughout the school. Observing and improving instruction referred to providing professional development opportunities.

Weber's framework differed from Hallinger and Murphy (1985) and Murphy (1990) primarily by embracing stakeholder input. In addition, Weber's framework focused on assessing the instructional program as a key function of instructional leadership. Assessing the instructional program referred to the principal being extensively involved in the school's assessment program. Although based on literature,

like Murphy's model (1990), this model has not been empirically tested, so it is not known if leaders exhibit the behaviors described in Weber's model or if they lead to significant academic improvement.

Blasé and Blasé (1999) conducted a study to understand from a teacher's perspective the principal's instructional leadership role. They used an open-ended questionnaire completed by 800 teachers from various regions (Southeast, Midwest, and Northwest) to understand how teachers viewed effective instructional leaders. Teachers were asked about the characteristics of school principals who positively or adversely affect classroom teaching. Two themes emerged: Talking to teachers to promote reflection, and promoting professional growth. Consequently, Blasé and Blasé derived an instructional leadership model based on 2 themes and 11 strategies to carryout practices supportive of teaching effectiveness. Their model is called the Instructional Leadership Reflection-Growth Model.

Talking to teachers to promote reflection is an effective instructional leadership behavior identified by Blasé and Blasé (1999). Talking to teachers consists of the administrator engaging in dialogue inside and outside of formal instructional settings (e.g. conferences). Blasé and Blasé found that effective instructional leaders valued dialogue and encouraged teachers to reflect critically on their learning and professional practice; made instructional suggestions, gave feedback, modeled, used inquiry, solicited advice and opinions, and gave praise; made suggestions formally and informally in a non-threatening manner; and were accessible (1999, p. 359). Overall, effective instructional leaders engaged in regular professional conversations with teachers in ways that modeled reflective practice, showed support, and encouraged innovation.

Blasé and Blasé (1999) identified promoting professional growth as the second factor of effective instructional leadership. Promoting professional growth involved focusing on teaching methods and staff interactions. Effective instructional leaders employed six strategies to promote professional growth: supporting collaborative efforts among educators, developing coaching relationships among educators, encouraging and supporting redesign of programs, applying the principles of adult learning, growth and development to all phases of staff development, and implementing action research to inform instructional decision making (Blasé & Blasé, 1999, p. 363). These elements served to enhance professional capacity by focusing on collaboration, coaching, and autonomy.

In short, Blasé and Blase (1999) found that effective instructional leaders emphasized the study of teaching and learning by using formal staff meetings to discuss relevant instructional needs and fostering collaboration among the staff by modeling the teamwork philosophy, establishing a time for teams to collaborate, and encouraging peer observations. Administrators encouraged peer coaching and coached teachers to identify exemplary teachers and those needing improvement. Administrators encouraged teachers to redesign instructional programs and provided resources to support their efforts. Administrators applied adult learning principles by supporting collaboration, inquiry, lifelong learning, experimentation, and reflection. In addition, administrators provided teacher autonomy. Overall, these strategies enhance professional growth by allowing teacher autonomy, choice, and by providing many opportunities for peer collaboration.

In summary, instructional leadership is heavily cited in educational literature and has ties to research on effective schools and school improvement. Instructional

leadership is a leadership domain focused on improving teaching and learning. The Blasé and Blasé Reflection-Growth Model (1999) helped to shed light into the characteristics and processes of effective instructional leadership from a teacher's perspective. The Reflection-Growth Model (1999) entails two major themes of effective instructional leadership with 11 related strategies. The themes include talking to teachers to promote reflection and promoting professional growth. These themes emphasize the importance of instructional decisions being made in collaboration with others. Thus, the Blasé and Blasé definition and framework of Instructional Leadership are used in this study. Specifically, an instructional leader is a principal who uses a broad-based approach of talking to teachers and integrating reflection and growth to build a school culture of individual and shared critical examination for improvement (Blasé & Blasé, 1999, p. 22). This definition has been adopted for the purpose of this study.

The Blasé and Blasé instructional leader definition and framework were chosen because they were based on the teacher perspective of an effective instructional leader which is how the participants for this study were identified. In addition, the focus of this study is on the reflective practice of an instructional leader as she creates improved instructional conditions, the Blasé and Blasé (1999) framework is open-ended allowing for themes to emerge naturally. The Blasé and Blasé framework served as a way to conceptualize practices used by leaders to improve teaching and learning in their schools. As these practices were identified they were then viewed through the reflective practice framework adopted for this study.

Summary

In closing, reflective practice and instructional leadership are two concepts that are heavily cited in educational literature with links to improved teaching and learning. Identifying how effective instructional leaders engage in reflective practice can provide implications for aspiring administrators in educational leadership preparation programs as well as for practicing novice and experienced leaders. For this study, reflective practice was defined as a process that allows educators to think systematically about teaching and learning (Dewey, 1933) and learn from experience (Schon, 1987). This definition has been adopted because the definition encompasses the views of both Dewey and Schon who are leading theorists on this topic. Reflective practice is often seen as a mystical concept; however, Dewey's and Schon's work serve to bring clarity to its theoretical properties. On the other hand, instructional leadership is a heavily cited leadership model found in educational literature. For this study, instructional leadership is defined as a principal who creates conditions for improved teaching in learning by using a broad-based approach of talking to teachers and integrating reflection and growth to build a school culture of individual and shared critical examination for improvement (Blasé & Blasé, 1999; Marsh, 2002; Spillane, 2004). Blasé and Blasé (1999) developed a Reflective-Growth Model based on the teacher perspective to understand better the characteristics and behaviors of effective instructional leadership. The model will serve as a lens through which to view the reflective practice of an effective instructional leader. Overall, reflective practice and instructional leadership are practices heavily cited in educational literature and have links to improved teaching and learning.

CHAPTER III

RESEARCH METHODS

Introduction

The purpose of this study was to explore how elementary school administrators who have been perceived as effective instructional leaders engage in reflective practice to create conditions for improved teaching and learning. The methods section of the study presents an overview of the research design, focusing on data collection, a description of the participants and their settings, and data analysis techniques. The section begins with a description of the research approach.

Research Approach and Procedures

Considering the descriptive nature of this study, qualitative methods were employed to describe how instructional leaders engaged in reflective practice. Qualitative methods allow for an in-depth exploration of phenomena with a specified context and as experienced by participants (Yin, 2009; Patton, 2002). Qualitative techniques were used because the topic of study needed to be further explored and detailed to provide a better understanding of how reflective practice was carried out by principals in an urban district (Creswell, 2007; Patton, 2002). Reflective practice among effective instructional leaders is a topic that warrants further investigation, and its complexity is best served by qualitative approaches to research. As a result, this research study provided a rich description about the role and process of reflective practice among principals.

A case study was used as the research design. Since much is unknown about the engagement of reflective practice within the instructional leadership role, a case study

allowed for an in-depth understanding of reflective practice (Leedy & Ormrod, 2005). The case study method aids in answering "how" and "why" questions through a rich explanation and description of individuals experiences (Leedy & Ormrod, 2005; Yin, 2009). Consequently, in order to understand the engagement of reflective practice among school administrators within their instructional leadership role, the following research questions were stated:

Primary Question

1. How do elementary school administrators who are perceived as effective instructional leaders engage in reflective practice to create conditions for improved teaching and learning?

Sub Questions

2. Among these participants, who is the object of their reflection as they create conditions for improved teaching and learning?

3. What factors influence administrators to learn from their experiences? How?

4. What factors serve as barriers to administrators learning from their experiences? How?

Sampling Strategy

Purposeful sampling was used to identify participants for the study. Participants were chosen for the study because they were "information rich" with respect to the phenomenon of interest (Crewell, 2006; Patton, 2002). Four participants were chosen. The four participants were school administrators in an urban school district who participated in the "Community Schools" study. The Community Schools study identified principals who were perceived by teachers to be effective instructional leaders. The study was conducted during the 2009-2010 school year by researchers from the University of Oklahoma. Effective instructional leaders were selected because they have shown evidence of creating conditions that positively affect teaching and learning. Edmond's work (1979) highlights the significance of the instructional leader and his work continues to be supported by studies that suggest that student achievement is more likely to occur where there is strong instructional leadership (Witziers, Bosker, & Kruger, 2003; Jazzar & Algozzine, 2006). Upon the Institutional Review Board (IRB) approval, contact was made inviting the participants to take part in this study. All four principals identified from survey data agreed to participate. Data collection took place over a 4 to 6 week period. Profiles of the four participants follow in the next section of this paper.

Participant Profiles

The participant profiles include information about the participants' personal background and school context. Rich description was gained about the participant's background and school context to place the study in a real life setting that reflects the challenges of leading urban schools.

Amber

Amber has 28 years of experience in education. She was a speech pathologist for 13 years. The position as a speech pathologist allowed her to work in various schools and observe many school leaders. She has been a school leader for the past 15 years. She has been the principal at her current site for 8 years. As far as leadership, she describes herself as being a strong leader, and she views instructional leadership as being able to take a moderate teacher and make him or her more effective. She stated,

> I want exceptional educators every day, in every classroom so the way you do that is to make the middle of the road people better, to take those highly effective teachers to continue to encourage them and not burn them out and to exit those who are truly horrible. That's what being an instructional leader is all about.

Overall, Amber describes herself as passionate, happy, and devoted.

Amber serves in an elementary school that sits in a community defined by high poverty. The school is surrounded by three housing projects. The school is a Title I school, offering a pre-k-5th grade year-round program. The ethnicity includes African American 41.3%, Caucasian 25.1%, Hispanic 18.1%, American Indian 13.3%, and Asian 1.9%. The school population is approximately 430 students with 97% of the students qualifying for free-reduced lunch. Considering the high level of poverty, this school is known for defying the odds. Although the students in this school live in poverty, they perform at high academic levels as gauged by state test scores. Largely contributing to the school's success is the fact that the school is a community school and that Amber is willing to do whatever it takes to ensure that all students learn. In community schools, there is a coordinator who acts in a shared leadership role with the principal to ensure that

the basic needs of the families are met so students are prepared to engage in the educational process. The school provides families with such things as meals, medical support, after school programming, access to a social worker, etc. Overall, this school prides itself in being a support to the community.

Alicia

Alicia was a teacher for 14 years, primarily teaching upper elementary grade levels. She began her career in administration as a principal intern, but mid-way through the year she became a principal. She is now in her fifth year as the principal at her current school and is working toward earning a doctoral degree in education administration. As far as leadership, she describes herself as being energetic and wanting to empower teachers. Alicia believes that instructional leadership means being the type of leader who helps teachers become the best possible teachers they can be. Overall, she describes herself as energetic, intelligent, and enthusiastic.

Alicia serves in an elementary school that sits in a historic neighborhood "where everyone knows everybody." The school is a Title I school, offering a pre-k-5th grade, year-round program. The student ethnicity includes Caucasian 59.6%, American Indian 19.7%, Hispanic 11.0%, and African American 9.5%. The school population is approximately 411 students with 92% of the students qualifying for free/reduced lunch. Over the years, the number of families qualifying for the free/reduced lunch program has slowly increased. The school community is described as loyal and the school is characterized by the "small town" feel of the community. It is a school where many of the parents and some staff members were once students. Two teachers who recently

retired were students at this school. The school typically performs well academically and there is a high level of teacher retention. Alicia describes her staff as a "tight knit group."

Carlie

Carlie has worked in the same school district throughout her entire career. She spent 4 years as a third and fourth grade teacher. It was during her last year of teaching that she engaged in the National Board Certification (NBC) process and achieved certification. She then worked in the professional development department for the district prior to gaining an administrative assignment. She has been an administrator as an elementary school principal for 5 years. This is her fourth year at her current school site. She comes from a family lineage of educators. As far as leadership, she describes herself as being a democratic leader and defines instructional leadership as modeling desired behaviors stating, "It's setting the example of how teaching and learning should take place in our building; it's holding everyone accountable including myself, towards every individuals child's progress and learning." Overall, Carlie describes herself as reflective, loyal, and hard working.

Carlie serves in an elementary school that sits in a beautiful neighborhood of upper middle class homes. The school is a Title I school offering a pre-k-5th grade program. The student ethnicity includes Caucasian 65.6%, African American 12.1%, American Indian 10.8%, Hispanic 9.7%, and Asian 1.6%. The school is known for strong academics, lots of parental involvement, and high teacher retention. However, Carlie notes that the "neighborhood is slowly graying." The school has a long history of high achievement; however, it is experiencing a rapid change in demographics, which is posing some challenges that the school has never had to encounter in the past. The

poverty level at this school has significantly increased over the years with 49% of the students qualifying for free/reduced lunch program. As a result, this school qualified for Title I funding for the first time in its history. The increase in poverty is attributed to nearby low income neighborhood apartment complexes. Additionally, the acceptance of transfer students has increased so that the current level of staffing and programing at the school can continue. The change in demographics has been a challenge for the staff because many of them have taught at this school for their entire career and are facing new challenges that they have never experienced. Carlie has tackled this challenge proactively and has implemented professional trainings and growth opportunities. Carlie and five of her teachers are nationally board certified teachers. Overall, Carlie explains that her school "is a really good place to be."

Rochelle

Rochelle gained interest in teaching because she had to do some work in music therapy and some educational theories and studies. She was distressed by some of the things that she saw in classrooms and how the fine arts were neglected. She noticed that teachers were not really vested in what she considers the "whole child." She believes in a well-rounded kind of classroom. As a result, she graduated with a degree in piano but also completed a degree in elementary education and started teaching. Her mission as a teacher was to give children a well-rounded classroom experience. She brought what she learned about music and the fine arts to the classroom. However, she became fascinated with how kids learn to read. She was a classroom teacher for 12 years teaching grades 1-8.

Transitioning to administration was an evolution for her as she taught in a nurturing teaching environment and developed as an instructional leader. She was chosen for her first administrative assignment as an experiment under the theory that schools that were failing could be best led by people who were strong instructional leaders or master teachers rather than people who were only perceived as good managers. She has been an administrator for 20 years, and she has been at her current site for 15 years. Overall, she has served students for 32 years. As far as leadership, she describes herself as focused and vested. She defines instructional leadership as being able to "personally own responsibility for the results of the students and the teachers in your building." This personal responsibility entails finding out which teachers need to be effective and being committed to teaching, coaching, and supporting them through the process. Overall, Rochelle describes herself as devoted, intelligent, and a risk taker.

Rochelle serves in a Title I elementary school. The school offers a pre-k-5th grade, year-round program. The ethnicity includes Hispanic 49%, African American 28%, Caucasian 15%, American Indian 7%, and Asian 1%. The population of the school is approximately 465 students with 96% of the students qualifying for free/reduced lunch. Historically, the school has been known for producing good test results. However, over the past 10 years, the school's neighborhood has changed causing the school community to re-think its practices in order to continue to produce results with the changing demographics. Specific changes have stemmed from neighborhood apartment complexes. Ten years ago, the apartments were privately owned but over the course of 2-3 years, the apartments were sold and became subsidized housing. As a result, the test scores dropped to the very bottom and the school found itself on the needs to improve

list. Additionally, another dynamic was the increasing Hispanic community, which brought in increased numbers of English Language Learners. In response, staff members went on a hunt for a methodology that could provide a solution. They found a literacy process that they credit for many successes in language development and other literacy skills. Today, the school is back on the path toward successfully educating all students. What staff members have learned is that it takes a scientifically research-based approach to literacy for all students to be successful.

In summary, the profiles provide information about the participants' background and their school context. The study was conducted with four female principals who lead in Title I elementary schools. Therefore, considering the sample size, the profile information provides context information for the study so the reader can identify if the study is transferable to other contexts (Creswell, 2006). Next, data collection will be described.

Data Collection

The scope of the data collected was based on the accounts of four principals identified as effective instructional leaders. To set boundaries for the data collection, the theoretical framework adopted for this study was employed (Lincoln & Guba, 1985). Data were collected through in-depth interviews, a focus group, an open-ended questionnaire, and written documents that described the engagement of reflective practice among effective instructional leaders (Patton, 2002; Yin, 2003). Multiple sources of data were collected to aid in triangulation to increase the creditability of results (Creswell, 2007; Yin, 2003). Protocols were developed and coded to focus the study on reflective practice. As the researcher, I served as the primary instrument for data collection

(Lincoln & Guba, 1985; Merriam, 1998; Patton, 1990). Being the instrument for data collection allowed data to be processed as soon as it became available, environmental cues to be considered (body language, laughter), and atypical or unexpected responses to be explored (Lincoln & Guba, 1985).

Because I am a principal in the same school district as the participants, bracketing was used during the data collection process. Bracketing consisted of setting aside experiences, as much as possible, to take a fresh perspective on the issue of the study as viewed from the participants' experiences (Creswell, 2007; Leedy & Ormrod, 2005). As a result, care was taken to make no interpretations other than those gathered from the data. For example, during the interview process when participants mentioned initiatives or processes that they employed, they were asked to explain the initiative or process although I may have been very familiar with the process. The following section will further describe the data collection process.

Principal In-depth Interviews

Two in-depth interviews were conducted with each participant. The purpose of the study, the length of participation, and confidentiality measures were shared prior to beginning the interview process. Informed consent was gained by each participant. The initial interview was conducted prior to the focus group, and the second interview served as a follow-up interview to the focus group. Prior to conducting the first interview, the best time, place, and date for the in-depth interviews were established. In deciding on the interview location, convenience for the participant, noise level, and privacy were considered. Most of the interviews were conducted in the principal's school office after school hours and lasted for approximately 60 minutes. The in-depth interviews were all

conducted in person with the exception of one follow-up interview that occurred over the phone. Interview data were fully transcribed with the exception of the one follow-up phone interview which was loosely transcribed.

Case study protocols were created to guide the study (Yin, 2009). Case study protocols included interview questions, personal reminders to probe with certain questions during an interview, and reminders to conduct certain interview procedures (Yin, 2009). For example, for the initial interview, an introductory paragraph was written introducing the study to the participants. A reminder note was written to give the participants a copy of the interview questions to assist visual learners. Also, for the case study protocol, probing questions were included that might be asked throughout the interview based on participant responses. Codes were on the protocols based on the frameworks adopted for this study. The case protocol was important because it outlined the study's procedures so that a later investigator could follow the same procedures described and arrive at similar findings and conclusions (Yin, 2009).

Interview protocols were adopted to guide the interviews (see Appendix B, C and G). The general interview guide outlined a set of issues to be explored with each respondent before interviewing began (Patton, 2002). This guide ensured that all relevant topics were addressed with each participant. As a result, interview questions were created in relation to the reflective practice framework (see Appendix N) and the Blasé and Blasé Reflection Growth Model (see Appendix M) adopted for this study. Questions were coded with properties from the frameworks. Although the questions were used as a guide, flexibility and probing of responses were allowed among the participants to gain a

holistic view of their engagement in reflective practice. In addition, the participants were given a copy of the interview protocols to allow visual learners to review the questions.

The initial in-depth interview focused on the participant's knowledge, experience, and attitude toward reflective practice and instructional leadership (Patton, 2002). The follow-up interview (see Appendix G) served to gain more information about cognitive processes and behaviors that administrators employed as they engaged in reflective practice, as well as to ask further questions to gain clarity from the initial interview or focus group. Overall, the use of in-depth interviewing allowed for exploration of the engagement of reflective practice of elementary school administrators as they create conditions for improved teaching and learning. The reflective practice framework (see Appendix N) for this study served as a lens through which to view engagement in reflective practice.

Focus Group

For this study, one focus group took place at a location that was convenient for the participants. The goal of the focus group was to gain a more informed and balanced understanding of the engagement of reflective practice through participant interactions (Leedy & Ormrod, 2005; Kreuger & Casey, 2000). The focus group interaction provided an understanding of participant influences toward reflection and learning. The focus group occurred after the initial interview and involved four participants. The focus group session lasted approximately one hour and I served as the moderator. As the moderator, the topic was introduced, questions were presented in a non-threatening manner, no one dominated the conversation, and the conversation stayed focused on the topic (Krueger, 1994; Leedy & Ormrod, 2005). The focus group protocol was clearly thought out

utilizing the Reflective Practice Framework (see Appendix F and N) and the Blasé and Blasé (1999) Reflection Growth Model (see Appendix M). In addition, during the focus group, norms were discussed which were not on the focus group protocol given to each participant. Norms provided guidelines during the focus group. Some of the norms included: keeping the group discussion confidential, being respectful of others' responses and talk time, and keeping responses focused on the topic and within a 2-minute or less time-frame. Overall, the focus group was beneficial in identifying themes related to reflective practice. As a result, field notes were taken to document themes as they emerged from the focus group. Individual participant's responses were analyzed before drawing final conclusions.

Open-ended Questionnaire

For this study, each participant was asked to respond to an open-ended questionnaire. An open-ended questionnaire is used to solicit the perception of the participant (Allport, 1942; Blasé & Blasé, 1999). Consequently, the open-ended questionnaire was employed because it allowed participants to communicate their thoughts freely about reflective practice. This free, yet focused, form of communication allowed the participants to have control over their responses (Blumer, 1969; Bogdan & Taylor, 1975; Strauss & Corbin, 1990). The questionnaire consisted of five questions (see Appendix E). To develop the questionnaire, I used Leedy and Ormrod's (2005) 12 guidelines for constructing a questionnaire. A few examples of the guidelines include keeping the questionnaire short; using simple, clear, and unambiguous language; and checking for unwarranted assumptions implicit in questions (Leedy & Ormrod, 2005). The focus of the questionnaire was to gain practical insight into the thinking and learning

process of the participants. Similar to the interview and focus group protocols, questions were derived from the reflective practice framework (see Appendix N) and allowed for "thick description" about the engagement of reflective practice among administrators.

Document Collection

As it related to document analysis, a personal profile (see Appendix A) and school profile were used to gain background information about the participants and their school contexts. In addition, participants were asked to keep a 3-week journal documenting their thoughts and interactions as they talked to teachers to promote reflection and professional growth (see Appendix D). These documents and artifacts provided information about the participants' "behaviors, experience, beliefs, knowledge, values, and perceptions" (Goodwin & Goodwin, 1996, p. 137). Documents with the exception of the journal were gathered prior to the initial interview. The participants completed the personal profiles during the initial in-depth interview to provide general background information. Data gathered by documents were confirmed through interviews, the focus group, and questionnaires (Goodwin & Goodwin, 1996). Overall, the primary use of documents within this case study was to confirm and enhance the evidence found by other data sources (Yin, 2009).

In summary, this study used two in-depth interviews, one focus group, an open-ended questionnaire, and written documents to explore how effective instructional leaders engage in reflective practice as they create conditions for improved teaching and learning. All study protocols were created utilizing the Reflective Practice Framework (see Appendix N) and/or the Blasé and Blasé (1999) Reflection Growth Model (see Appendix M). The use of multiple sources of data, known as triangulation, was

employed to strengthen credibility of findings (Denzin & Lincoln, 2005; Leedy & Ormrod, 2005; Patton 2002). Overall, multiple data sources allowed reflective practice to be explored from various perspectives (Denzin & Lincoln, 2005).

Data Analysis

Data for this study included responses from two in-depth interviews with each participant, one focus group, an open-ended questionnaire, and written documents. Miles and Huberman's (1994) analytic procedures were employed. Specifically, analysis consisted of three flows of activity: data reduction, data display, and conclusion drawing/verification (Miles and Huberman, 1994). Overall, data analysis was a rigorous process. Each step of the process is described next.

Data Reduction

First, case data were organized for data reduction, which made data easy to retrieve and manage (Yin, 2003). "Data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcriptions" (Miles & Huberman, p. 11). The data reduction process started before data collection and continued after fieldwork. Data reduction was a vital part of the analysis because it aided in the decision-making process of selecting data to code or to extract. Data-reduction decisions were based on the Reflective Practice Framework (see Appendix N) and the Blasé and Blasé (1999) Reflection Growth Model (see Appendix M). The theoretical framework for reflective practice included two properties: systematic thinking and learning from experience. The properties of instructional leadership included talking to teachers to promote reflection and promoting professional growth. Data reduction began as study protocols were created according to

the theoretical frameworks and protocols were coded according to the components within each framework (see Appendix N).

Data Display

The second step was to organize data for display. "Data display is an organized, compressed assembly of information that permits conclusion drawing and action" (Miles & Huberman, 1994, p. 11). Displays may include matrices, graphs, and charts. To display this study's data, tables were created that were labeled with components of the reflective practice and instructional leadership frameworks (see Appendix H & I). The interview transcription, focus group transcription, questionnaire responses and journal responses were reviewed for reoccurring words or themes related to that particular reflective practice property. This process was repeated for the instructional leadership framework. Significant statements were extracted from the transcripts and organized within the table under the corresponding property of reflective practice or instructional leadership (see Appendix H). Care was taken not to strip the data from its proper context by coding the transcriptions when statements were extracted. Coding the transcriptions provided the ability to refer back to where the statements originated with ease to ensure that statements were being reported in the proper context. Additionally, the software Nvivo was used solely as an organizational tool for the case data.

Overall, displaying these data was an analytical activity. Creating and reviewing the display aided in understanding what was happening among the participants and whether more information was needed (Miles & Huberman, 1994). For example, after the initial interview with a participant or the focus group, the interview and focus group responses were transcribed, and the data were displayed. As a result of reviewing the

organized data, further questions that needed to be asked during the follow-up interview were identified.

Data Analysis and Conclusion Drawing

Data analysis and conclusion drawing were the next steps employed in the analysis process. According to Miles and Huberman (1994), "From the start of data collection, the qualitative analyst is beginning to decide what things mean,- is noting regularities, patterns, explanations, possible configurations, causal flows, and propositions" (p. 11). After data were organized according to the Reflective Practice Framework and the Reflection Growth Model, content analysis was used to search for reoccurring words and themes. This process allowed for the identification of patterns within the participants' responses. Generating conceptual themes conforms to Miles and Huberman's (1994) method of textual analysis, whereby issues of importance inductively emerge from the data. The recurring themes and/or words were colored coded within a Microsoft Word document. Throughout the process, premature conclusions were held lightly as it was important to remain open and cautious. Running records were kept of themes as they emerged. Themes were continuously reexamined and organized throughout the analysis process (Patton, 2002; Yin, 2003).

As conclusions formed, they were verified. According to Miles and Huberman (1994), verification can include a brief second thought, looking back at field notes, or it can be an extensive review among colleagues to gain consensus about findings (Miles & Huberman, 1994). To verify conclusions, I then wrote comprehensive narratives analyzing each participant's engagement in reflective practice as she created conditions for improved teaching and learning. The narratives also documented information about

the participants' personal backgrounds and school contexts. A summary of findings was written for each participant and a table was created that organized all of the themes that emerged from the displayed data and from the individual narratives to prepare for cross analysis (see Appendix I). The letter X was placed in the cell if a particular theme was identified by that participant. Consequently, similarities and differences among the participants were evident. After further analyzing the themes, significant and sub themes emerged. Some themes were inter-related and were collapsed within one theme; for example, affirmation of colleagues and learning from others merged under the theme entitled Community Interactions which highlights various interactions such as principal to principal and principal to teacher.

To further verify, a peer reviewer was invited to engage in content analysis. She has a doctorate degree, has taken introductory and advanced qualitative courses, and has experience with analysis procedures. The findings of the peer reviewer served to compare and verify the findings for this study (Creswell, 2006; Leedy & Ormrod, 2005). Additionally, member checking and respondent validation were used by sending the narratives along with interview transcriptions to each participant for their review (Creswell, 2006; Leedy & Ormrod, 2005). Participants responded by e-mail to verify that their responses were written in the correct context and reflected their beliefs.

In summary, Miles and Huberman's (1994) data analysis procedures of data reduction, data display, and conclusions/verification were employed. Protocols were coded according to the Reflective Practice Framework (see Appendix N) and Reflection Growth Model (see Appendix M) adopted for this study. Interview and focus group responses were fully transcribed. Interviews, focus group data, and documents were

organized in a table to prepare for thematic analysis. Content analysis was utilized to identify recurring words or themes and a chart was created to engage in cross analysis. To verify findings, peer review and member checking were employed (Creswell, 2006; Leedy & Ormrod, 2005). Emerging themes served to provide rich description about the thinking processes and behaviors of effective instructional leaders as they engaged in reflective practice to improve teaching and learning.

Summary

A case study was used to allow for in-depth exploration of how instructional leaders engage in reflective practice. Research methods were designed to address the general question: How do elementary school administrators who are perceived as effective instructional leaders engage in reflective practice to create conditions for improved teaching and learning. Qualitative methods provided a rich description of thought processes, behaviors, decisions and interactions of participants as they reflected on their leadership. An ethical issue that was considered was the shared experiences the researcher has with the participants. I am currently a principal in the same district as the participants. Consequently, bracketing was important to reduce the occurrence of researcher bias and to increase objectivity in the study (Creswell, 2007; Leedy & Ormrod, 2005). In addition, ethical issues that were considered throughout the study included gaining consent and confidentiality of information (Patton, 2002).

Overall, the methods used were appropriate for the research question and purpose of the study. Next, findings from the analysis are presented.

CHAPTER IV

FINDINGS

Introduction

In this section, emerging themes are identified based on the 4 principals' accounts of how they engage in reflective practice to create conditions for improved teaching and learning. Themes are organized by the conceptual framework to allow for coherence and ease of comparing principal experiences against elements of reflective practice. Similarities and differences in reflective practice are identified within themes. The chapter begins with elements of systematic thinking then describes how principals learn from their experiences. The chapter concludes with a summary of findings.

Systematic Thinking

Reflective Practice includes two dimensions: systematic thinking and learning from experience. This section synthesizes experiences from the participants that were related to systematic thinking. Systematic thinking is shaped by the meaning-making process, rigorous disciplined thinking, community interactions, and individual attitudes. Evidence is organized according to the above elements of systematic thinking and concludes with a summary of findings about how the participants engage in systematic thinking to create conditions for improved teaching and learning.

Purpose: Meaning making process

Meaning making is a characteristic of reflective practice that differentiates systematic thinking from other cognitive processes. The purpose of reflective practice is to gain a deeper understanding of experiences or complex phenomena so that individual and organizational performance can be improved (York-Barr et al., 2006). The meaning

making process involves constructing knowledge through interactions with others and the physical environment. Interactions consist of social exchanges among individuals and the experiences of individuals as they interact with the physical world. To illustrate, Dewey (1938) explained how the conventional belief in the 17th century that the world was flat changed after the voyage of Columbus. In this example, individuals changed their thinking about the world based on their interactions with others and their experiences with the physical environment. Similarly, principals in this study noted how examining patterns of actions and interactions enabled them to make sense of teaching and learning issues.

For experiences to generate meaning there needs to be an object of investigation. Data indicate that principals in this study primarily focused their reflection on the whole child in the context of high stakes testing and how to support and develop effective teachers; other objects of reflection included parental/community involvement, professional development, and various data sources. However, the whole child and teacher effectiveness dominated the meaning making process. Other objects of reflection served as a support to the whole child and to developing effective teachers. The principals constructed knowledge by learning from influential experiences, people, and/or processes. Additionally, they constructed knowledge by learning from available information on effective practices. As the four principals in this study created conditions for instructional improvement, they made sense of effective teaching and learning in their school by largely reflecting on needs of the whole child and support for teaching effectiveness.

The whole child. Data suggest that the largest object of reflection was on supporting the development of the whole child. The whole child in this case refers to the social, emotional, physical, and cognitive needs of students, not simply their academic performance. Amber said,

> We focus on what's best for kids, not what's best for the adults- period. Is that best for kids, or is that best for the adults? And there are people out there that say, "Well, when I focus on what's best for adults, then that ends up going down to what's best for kids." And that's not true. I think you have to always put the kid first – what's best for that child? – What's best for the children *in the school?*

Amber believed you must always focus on the safety and psychological needs of students first and then academic results. She also believed in looking at multiple sources of data to determine student progress and needs. She said, "We look at everything that is involved in the child." Although she recognized achievement data (reading and math state test scores) as important, she said, "I still think you have to teach the whole child. I do think we've missed the boat when it comes to the arts and science and social studies." Additionally, she referred to her school as a "community school" and discussed how she and the staff help to meet basic student/family needs through various services. Moreover, Amber credited God as her way to make sense of experiences and succeed under challenging circumstances. She explained that she prayed a lot for her students and that her staff prayed often during non-contract time. In meeting the needs of the whole child and supporting teachers, she was cognizant of the spiritual needs of her students and staff.

Similar to Amber, Alicia explained that her focus was on student needs. When asked what she reflects on the most she explained, "Oh, students would be your obvious.

I mean my obvious one. Your focus is student learning, that's the bottom line, that's the huge piece of it all." Alicia discussed frustration with wanting to show the reflection of the whole child when the external context of accountability only considers achievement on test scores as an indicator of learning. Nevertheless, she understands that because of many factors students are portrayed one dimensionally, by achievement test data, but to address achievement you have to first satisfy the physiological and psychological needs of students.

Carlie and Rochelle stated that their overall focus was on students and ensuring that they received the best possible instruction. Carlie expressed the enormous pressure that she felt to teach the whole child. She said, "You know science and social studies and writing and citizenship and all of those things are enormously important and children need all of that, and I think we're losing children to those subjects." She also understood that the phrase "teaching the whole child" was becoming a cliché, but she said that she truly believed in the importance of meeting holistic needs. Carlie noted,

> Especially in elementary schools, most of the kids have only been on the planet for 11 years, just a brief time. And I think we are called upon, especially now to teach them more than just academics. We teach them citizenship; we feed them; we cloth them; we teach them social behaviors; we help them deal with their emotions.

Carlie described meeting holistic needs as complex but nevertheless a necessity. She said, "You just can't teach academics without addressing everything else." She believed in looking at multiple indicators and sources of evidence to assess the learning and development of students.

> I think that if I'm not real careful, I can get real legalistic with my data and I can become punitive out of desperation, and so I think that you also need some soft data. I don't know. You need some anecdotal notes. You need some personal experiences with kids.

She then went on to share the story about one of her favorite kindergarteners who had made significant progress from the beginning of the year. One day, he came to her office to show off his work. He had cut out and colored the letters D and K. Also, he could identify them, do the visual phonics, and make their sounds. She ended the story by saying, "But you'll never find that on a data wall, and you'll never find that at the bottom line, but it was huge. And he was so happy, and he jumped up and down and squealed and clapped and we hugged." She tried to stay grounded by looking at this type of evidence just as much as she looked at test scores.

Similar to the other principals, Rochelle described the meaning making process as being student-focused. She said that she drew from the community school perspective of realizing that there were data everywhere that could provide evidence of meeting student needs.

> There are all sorts of quantitative data and qualitative data around. And whether we want it or not, a lot of that data tells us a lot about not just how children are doing but how teachers are doing and how they feel, how they perceive parents, and how much trust they have. And if you really believe that all of those things impact teaching and learning, then you just keep seeking new kinds of or sources of data.

Rochelle looked at the whole child through multiple sources of data and influences. She believes that there are many intangible variables to consider as she supports student learning. For example, Rochelle reflected on student behavior, social support, the importance of integrating the arts, and creating a positive school culture. Furthermore, a discussion emerged among the participants about whether their school made Adequate Yearly Progress and the pressure they felt about test results. Rochelle and other principals discussed the pressure of a business model in education which focuses largely on achievement outcome. Carlie explained that students are not widgets and that teachers are not machines, they are human. The discussion emphasized that student learning is more complex than producing systematic products. Rochelle responded by saying,

> When we talk about feeling the pressure of a business model, I think that business model comes into play and we have those conversations out of desperation. You know, looking for something that works other than looking more towards those models that address the whole child, like community schools. Out of desperation and feeling inadequate or not having resources, we can sometimes get pushed into things that we really don't believe in, that we don't really want to do.

Again, Rochelle placed an emphasis on meeting the needs of the whole child. Student learning is complex and there are many variables that come into play. As a result, principals believed it was important to seek support that will meet the diverse needs of students and their families.

In short, principals reflected on the whole child by considering holistic needs (e.g. emotional, social, cognitive, and spiritual) and looking for diverse evidence of learning and development. The principals believed that external accountability often narrowed

their reflection to focus on reading and math achievement data. As they reflected on student growth, they thought about factors influencing student learning, such as only having access to part of the curriculum, issues of poverty, a lack of resources, learning needs, and other social factors. The principals believed in the importance of gaining an understanding of the whole child to help students succeed, and they reflected on data capturing the holistic growth of students.

Teaching effectiveness. Like the whole child, teaching effectiveness was an object of meaning making. Effective teaching when children have diverse needs is a complex activity that evoked considerable principal reflection. Principals made sense of effective teaching by largely focusing on instructional practices and student progress.

Instructional leadership coupled with teacher evaluation provided principals with data to better understand teaching effectiveness. Two principals explained that they made sense of effective teaching through a new teacher evaluation framework and observation process. Amber credited a new teacher effectiveness evaluation as an instrument that helped her identify effective and ineffective teachers and allowed her to foster reflection with teachers around instruction. She said, "I thought I really knew these teachers and I've been shocked at some of the results." Through post-conferences, Amber provided meaningful feedback to teachers and engaged them in reflection about their teaching. Together they discussed how to tweak practices, and she presented her non-negotiables as it relates to curriculum, instruction, and the classroom environment. She said that they examined schedules and discussed instructional time, having a brain-based classroom, and teaching which incorporates different learning styles. Additionally, she discussed using data as a way for teachers to learn from each other's practices. For

instance, if a teacher was having great results, she would ask that teacher if others could observe her teaching. She often discussed the importance of teachers using research-based practices.

Similar to Amber, Alicia credited a new evaluation framework and process with raising her awareness about teaching effectiveness in her school. The process challenged her to sit in each classroom, look for specific indicators of effective teaching and student learning, and provide timely feedback. In addition to post- conferences, she said that grade-level meetings provided an opportunity for promoting reflection. At these meetings, teachers often discussed what they were teaching, what strategies they could use to improve instruction, whether they needed to change grouping strategies in their classroom, and which students needed extra tutoring. She often asked the teachers about the progress of individual students. If the student was not doing well, she said she asked the teacher, "What do we need to change to do that?"

Instructional supervision was also useful for helping principals reflect on teacher effectiveness. Carlie stated, "I just think that to really encourage reflective practice, you have to model it." She referenced child study meetings as a way to reflect on practices and said that bi-weekly she met with teachers during their planning period to discuss curriculum. She called this a time for grade-level teams to focus on "standards and benchmarks and what they are trying to get the kids to learn." Additionally, this was a time for them to reflect on the year-long book study about how differentiated instruction can be used effectively by teachers. Overall, she believed that she should not ask her teachers to do anything that she cannot and will not do herself. She also noted that teachers need to be reflective about their craft because "it's always changing and needing

to modify and needing to evolve and it's not a static art. It's something new every day." Consequently, she regularly modeled and facilitated reflection with her staff.

Rochelle believed that it was important to reflect on student achievement data because student progress can provide implications about the effectiveness of teaching practices and the skills that teachers need to develop. Also, she believed that access to achievement data was necessary to identify learning gaps. She noted that data use was the biggest divide between achieving schools and non-achieving schools:

> I think that the ones that are not getting results don't have enough information about how kids are really doing to be able to identify where the gaps and holes are in instruction and I think they don't have a common instructional language to address that.

Overall, she made sense about why students do not achieve by identifying the lack of data as the cause. She emphasized the importance of reflecting on how to address learning gaps based on the data:

> When we get kind of sucked into a pocket of not doing well in a particular grade level or in a particular area, that's kind of what it boils down to- that we're not looking really at the assessments and we're not figuring out what piece of instruction is missing or not going really well. Or we're not adjusting it, changing it, or trying something different.

Rochelle believes in the importance of constantly reviewing data to learn and improve instructional practice and results.

Overall, principals made sense of the whole child and teaching effectiveness by focusing on evidence of student learning and development. All four principals reflected

on information reporting the growth of the "whole child," not seeing students from one dimension (e.g. achievement). Each principal had a strong sense that there was more to student learning than test scores and that schools were responsible for teaching students more than just math and reading. The principals discussed the importance of considering multiple sources of data when reflecting on teaching and learning. Additionally, principals indicated that they talked to teachers about student progress and instruction. Instructional leadership which is characterized by talking to teachers about their practice to facilitate reflection and growth (Blasé & Blasé, 1999; Marsh, 2002; Spillane, 2004), a new teacher evaluation framework and process, and student performance were mechanisms that raised awareness of teaching effectiveness. Focusing on the whole child and teaching effectiveness was important to these principals to ensure the success of all students. Reflecting in these areas allowed these principals to consider ways to support the various needs of students and to support the professional growth of teachers.

Constructing Knowledge

Constructing knowledge consists of principals gaining new knowledge through their interaction with the social and physical world. Whereas meaning making addressed the primary object of reflection, constructing knowledge addresses sources of information for reflection. The four principals in this study constructed knowledge largely by learning from changing circumstances or situations, mistakes in decision making, improvement processes, and general research evidence.

Changing circumstances. The principals all discussed shifting demographics of their schools and the need to make changes as a trigger for reflection. Amber moved to a high-poverty school from a middle-class school that she considered, "pretty easy." The

change in context led Amber to question her competence and challenged her to learn new ways of doing things in her new setting. Amber initially tried strategies that worked in her previous middle-class high performing school but was not successful. After a series of trails, errors and questioning, Amber began to learn what strategies worked best in her high-poverty school. The change in context facilitated reflection and provided new information for Amber to process.

Alicia said that the poverty levels at her school were slowly increasing. She noted attendance as an increasing problem. As a result of this change, she and her team have worked feverishly to understand the needs of families and ways to improve attendance at their school. Alicia had a similar experience as Amber. Changing student demographics in her school presented new challenges that forced her to reflect on changing student and family needs. Carlie described her school as located in a middle-class neighborhood that was "slowly graying." As a result, attendance was down and the school had to increase the number of transfers to be able to support some of its extra-curricular activities and special classes. She noted that the increase in transfers resulted in a change in demographics, which presented a challenge to her teachers about how to adjust their instructional practice.

Similarly, the demographics in Rochelle's school had shifted in large part due to a set of apartments becoming low-income housing. She stated that for her first five years, the school performed at high levels. However, about 10 years ago, the demographics started changing dramatically. In 2000 approximately 10% of the school population was Hispanic; at the time of the interview, the percentage had risen to 49% Hispanic. She said that as a result of the change, the school's test scores began to decline. Evidently,

the faculty was not equipped to serve the needs of Hispanic students. The principal and her faculty reflected on how to better serve the needs of their Hispanic students, considered their teaching effectiveness with English Language Learners, and sought new methods of teaching.

Overall, changing contexts and new performance challenges led principals to construct knowledge from practices and processes they were experimenting with to improve delivery of learning. They confirmed that uncertainty from limited knowledge on changing needs required deep reflection on structures, process, and practices. After reflecting on their changing contexts, principals sought various resources to support the whole child and teaching effectiveness. Amber researched how to serve students living in poverty. Alicia continued to brainstorm and try strategies with her team. Carlie offered professional development to her staff and, similar to Amber, provided support to cultivate a positive school climate. Rochelle provided professional development in literacy instruction to support English Language Learners. Overall, change necessitated construction of new knowledge for principals.

Mistakes. Principals also discussed learning from mistakes as a way to gain new knowledge. Amber credited mistakes and misguided decisions as a way for her to understand how to become more effective. Amber discussed how a decision she made as principal of a middle-class school did not work at her current high-poverty school. She described decision-making in her early days as principal of the high-poverty school as trial and error. For example, she described a schedule that she used at her previous school that she began using at the high poverty school. The schedule involved a daily period of 1 ½ hours for lunch, recess, and character education. At her previous school,

this schedule allowed her to engage in professional development with her staff during the day. However, at her new school she noted that the schedule was not effective because it provided too much freedom. She learned from experimentation with the schedule that her students needed more structure because they had a hard time self-monitoring their behavior. Amber recognized that she would have to do things differently to be successful in a high poverty school:

> This is not an easy job. I was shocked at how hard it was when I first became a principal, and I was the principal at a pretty easy school. And then I was completely blown away when I went to a high-crime, high-poverty area and felt pretty helpless and I had to relearn everything, and had to research it all. I thought I was a pretty good principal but I was not.

She said that when she first came to the school, there were only 170 children. Eight years later, there were 430 students. As a result of learning from mistakes, Amber said that growth happened soon after she arrived. She learned the importance of creating a welcoming environment by being kind to parents and students. She found that many of the parents had not had successful experiences in school, so she and her staff worked hard to increase parental involvement by making them feel accepted. Overall, by reflecting on her decisions and the two school contexts, she was able to gain a better understanding of why practices may work in some environments and not in others. This new understanding allowed her to construct knowledge that would allow her to make better decisions in her new context.

Alicia discussed her process of constructing knowledge by identifying mistakes as ways that she learned to be more effective. She said, "So I think for me it was going

wow, that's really screwed up." Alicia was honest about her mistakes and facilitated this attitude with her staff. Alicia stated that her past learning experiences influenced her decision-making and that reflecting on a regular basis helped her to grow. She said, "What I was doing 4 years ago is not the same as what I'm doing now. If it was, I guarantee I probably wouldn't be sitting on this interview right now." She highlights the importance of embracing learning and growth to be effective in her position.

Rethinking decisions and practices about changing contexts and needs allowed Amber and Alicia to construct new knowledge. Their experiences express how interactions with the world influence beliefs and aid in knowledge construction. Similar to the belief that the world was flat and that learning was one dimensional, Amber thought that the way that she led at her previous low poverty school was the model of good leadership. However, she learned that in diverse contexts a new set of skills may need to be learned in order to be effective. Her experience challenged her initial belief and made her rethink her leadership approach. Alicia mentioned her interactions with her staff as a way to process her mistakes and construct new knowledge. In sum, mistakes were motivators to develop a better understanding of the whole child and teaching effectiveness.

Improvement processes. The principals in this study describe varying improvement processes which allowed them to construct new knowledge about their practice. The processes range from school improvement to personal professional improvement. At the school level, Amber credited the state site improvement plan as a process that allowed her to construct new knowledge and facilitate reflection among her staff. She described the site improvement plan process as being data driven. Similarly,

Alicia noted that external influences stemming from the district, state, and federal level challenged yet narrowed her thinking because of their ever changing expectations. She says, "As we get our data and we see what the expectation is, we have to continue to adjust our practices which means, we need to reflect on them and find the ones that are working and work to develop those that aren't."

Rochelle engaged in action research with her staff to study teaching and learning. She said, "I think that our own action research here is probably the most important thing like the example that I used about taking the 3rd grade test and breaking apart those test questions and then processing it, thinking about it, and talking about it." During this process her staff was able to read a passage, analyze the questions, and draw their own conclusions about what the assessment expected students to know. She engages her staff in this inquiry process to learn from mistakes and to ensure that they get results.

On a personal level, Carlie discussed the influence that going through the National Board process had on her ability to think reflectively and construct new knowledge. The process helped her look at her teaching and what she could do differently. She also noted the importance of working with a teammate who went through the process with her:

> I went through the [National Board] process with a teammate, and we really sat down and wrote a journal of how the day went and tried to examine that, and I think that that was kind of life changing. I think it was meaningful as a teacher, but I think it was also meaningful as a person.

This experience depicts how Carlie constructed new knowledge from peers and an improvement process.

In summary, improvement processes were seen among the participants as ways to construct new knowledge. Improvement processes encouraged the participants to personally and/or collectively examine their practice and to try new strategies for the purpose of constructing knowledge about best practices. Alicia and Amber mentioned the importance of data for reflection. Viewing data over time and reviewing school practices was an action that enabled principals to reflect on student learning. Rochelle's use of action research provides an example of reflection at the collective level. Carlie's involvement in the National Board Certification process provides an example of personal reflection on practice and peer support to gain knowledge about effective practices. Overall, improvement processes allowed participants to construct new knowledge for the purpose of improving their professional practice.

Research based practices/literature. In addition to constructing knowledge through changing contexts/situations, mistakes, and improvement processes, the principals also relied on research. They used existing technical knowledge derived from scientific evidence to understand and improve their performance. Amber constructed knowledge by reading extant literature and staying abreast of current research evidence. She said that she constantly read journals and books and sought to attend conferences to learn best practices. She emphasized learning effective teaching practices from brain and child development research. Amber was most interested in presenters at conferences who shared how the practices had worked in other schools. Amber also discussed her belief that nothing is new in education, "We just kind of reinvent the wheel. Multiage classrooms are really a version of the one-room school-house. It worked back then and it's working now."

Similarly, Alicia and Carlie constructed knowledge about educational issues by reading literature on teaching and learning. Carlie stated, "It's important for me to know what is good teaching and learning and be able to identify what it looks like, what it sounds like, and what it feels like." Alicia said, "I believe it is important to keep learning, so that I can both model and intelligently discuss what effective teaching and learning looks like. You can never know it all." Additionally, Alicia and Carlie are both students in a doctoral program and explained that they learned a lot through course content and interactions with their peers. Similar to Amber, Rochelle discussed reflecting on practices that were research based. Rochelle explained that evidence based reading practices had influenced her thought process. Different from the other principals, Rochelle also discussed that she engaged in action research as a way to inform her practice.

In summary, as these four principals engaged in the meaning making process they made sense of complex phenomena and constructed knowledge related to needs of the whole child and teaching effectiveness. They learned from influential experiences that involved changing contexts/situations, learning from mistakes, improvement processes, and research based practices. The meaning making process allowed the principals to gain a deeper understanding of complex phenomena through social and physical interactions that lead to new discoveries.

Cognitive Process: Rigorous and disciplined thinking

Systematic thinking is a rigorous and disciplined way of processing knowledge. Rigorous, disciplined thinking follows the scientific inquiry approach of questioning, theorizing, hypothesizing, investigating, and modifying (Pawson & Tilly, 1997).

Dewey's concept of reflection was based on the scientific approach of detecting a problem, describing an experience, analyzing an experience, and taking intelligent action based on new information (Rodgers, 2002). This process is cyclical; as the testing or the result of action becomes the next problem or experience for further examination and analysis (Rodgers, 2002). The principals engaged in rigorous thinking by pausing, questioning, examining, testing and modifying.

Detecting problems. Principals noted that upon the presence of an experience or problem, they took time to understand and describe the situation by pausing. Pausing involved acknowledging the problem or experience, talking to colleagues to gain perspective, and providing time and space prior to responding.

Scientific inquiry is problem based; therefore, to understand better how these four principals responded to problems, I asked about the steps they took when problems arose. As problems were discussed among these principals, they were identified as undesirable outcomes. To understand problems, Amber alluded to talking to a trusted colleague to gain perspective. Alicia said, "I think the main thing is acknowledging when there are problems." She described this process as taking time to sit down with a team to discuss possible reasons for the problem. Carlie said, "It's really ineffective if I'm emotional about the situation. My response is probably not going to be very accurate, so sometimes time is a good thing- space and time before you address it." Similarly, Rochelle stated, "I've learned to not have a knee-jerk reaction to problems but to try to look at it from several different perspectives." A commonality in principal experiences was the importance of pausing to gain perspective about a problem or issue. The importance of various data sources and different perspectives was evident in the understanding process.

Gaining perspective allowed principals to clearly describe and understand the situation. They placed an importance on understanding problems before drawing premature conclusions. This process allowed them to respond to problems more effectively.

Journaling was another way principals reflected on problems. Three principals regularly wrote down their thoughts as they described experiences surrounding problems. To aid in Alicia's understanding, she was a list maker. She stated that she often looked over her lists for the week and thought, "OK, I'm not where I need to be." Similar to Alicia, Carlie took notes on events and situations. She acknowledged that she was a visual learner and that knowledge about herself helped her reflect better:

> Since I know that about myself, that helps me to be a better reflector when I write things down. If you looked in my calendar, I have all sorts of little notes everywhere about do this, follow-up with that, call this person, and kind of jogging my memory on things to do.

She also discussed keeping a notebook by her nightstand to write down her thoughts so that she could go back to sleep.

Additionally, Rochelle discussed keeping a journal, which she described as a kind of on-going needs assessment. She said that her journal, a Steno notepad, was "pretty informal." She did not keep her journals by subject but instead used them as a way to reflect all day on what she was doing. She showed me a page of her notes from a conversation with a group of teachers and a retired physician about the differences between ADD and ADHD. This journal helped her remember important events as well as look at previous years to see what the issues were, what she was thinking then, where she was now, and where she still needed to go.

Understanding the source of problems. Among the four principals, analyzing an experience or problem involved questioning and reasoning with others. Amber described having a teacher whose reading scores were "sky high" and asking "why are they going sky high in her class?" She discussed the importance of the teacher sharing her practices with others. Rochelle discussed undesirable benchmark data that did not reflect the level of teaching she observed in her school:

> I think what the person that is reviewing that has to do is ask a lot of questions about why we got the results that we did and then try to bear down into the actual test items and the responses of the kids to try to get some clues about what was happening.

She explained that as she reviewed the benchmark data, she found that she needed more information and further engaged in item analysis. She believed that gaining more information would aid in answering her questions about the problem. Carlie talked about the child study process as a way to describe behavioral and academic challenges. She said that she asked questions such as "What are you trying to do? What have you done in the past? What are you thinking about doing in the future?" Carlie placed an emphasis on having evidence to support decisions and to demonstrate student learning. Alicia discussed the decline in attendance at her school. She explained that they have done home visits, provided incentives for students, closely monitored attendance and communicated the average to teachers. They have continued to brainstorm ideas as a staff as well as made phone calls. She ended by saying, "I'm going to pick kids up to bring them to school- I've done everything." She and her staff had done everything that they knew to do and they were still asking themselves, "What else?"

Principals analyzed problems/experiences individually and with a team to gain a deeper understanding to inform action. Problems ranged from general school improvement efforts to teacher effectiveness. Amber did not want to repeat practices that were not successful; she wanted to build on the practices that did succeed. She says, "You have to do that [reflect] a little bit individually but I still believe you have to do it with your team, your leadership team." She learned from experience that it takes a team to understand complex issues and that involving others promotes buy-in:

> I learned from years of experience that you're in big trouble if you make the decision alone (laughing) or you don't get any input, it's a dumbed-down type leadership. I mean, if you just pour it on them, they are going to reject it. If they buy into it, they will most likely be successful at it.

This statement described how Amber's analysis and understanding of her experiences informed her reasoning about getting staff to "buy-into" decisions. She used her experiences to improve future outcomes.

Similar to Amber, Alicia analyzed her experiences by examining them with others. Alicia said that it was important for her to stop and look at what she and her team were doing and ask, "Is it effective? And if it's not, there's nothing wrong with that, being able to say we've hit a bump in the road. If it's working, how can we expand on it?" Alicia and Amber analyzed their experiences with a team which allowed them to learn from mistakes and build on successes.

Carlie and Rochelle analyzed their experiences by examining their behaviors and attitudes; however, although they referenced learning with others, they placed an emphasis on examining themselves. This was evident as Carlie states:

> I try to reflect on my own just personally in a quiet time– kind of review situations or scenarios in my head and then question myself. You know, why do I think this has happened. What was the goal? Questions like that.

Carlie was careful to examine her personal actions and thoughts. Similar to Carlie, Rochelle emphasized the importance of self-reflection when analyzing experiences. She believed that to gain a deep understanding of teaching and learning it had to be made a personal priority:

> I think my challenge is to decide what to do and what not to do and what to ignore and what to respond to and how to use my time and to always keep that in front that my focus is on learning.

Rochelle developed an understanding about teaching and learning by constantly examining her priorities to ensure that she was focusing on students.

Taking Intelligent Action. Principals considered past learning and personal responsibility as they took action. They spoke of confidently taking risks because of past successes and taking action to meet the academic and basic needs of students. The two veteran principals discussed their ability to take risks. For example, Amber discussed starting a foundation to meet the needs of her high-poverty students and her trial-and-error behavior as she moved from a middle-class school to a high-poverty school. Rochelle spoke of risk taking when she and her staff refused federal funds to stay committed to a literacy process the school had already begun. She spoke of her past successes as confidence builders for future decisions.

Alicia and Carlie, the novice principals, discussed trying new ideas as new principals. Carlie discussed her decision as a new principal to create a micro-society as a

way to empower students and promote a positive climate within the school. Alicia talked about coming to a school that had the same leader for 16 years. Things had been done the same way for a long time. Her new perspective created tension at first, but over time she established trust with her staff and she felt that leaders at the district level respected her decisions as well. As the four principals experimented, they felt a great deal of autonomy from their district leadership. They felt that they were able to try new things and "think outside the box." Also, the novice principals noted that they had been able to build relationships with their staff and had autonomy from them as well because of the trust that had been built.

Additionally, testing ideas and new practices was not seen by these principals as the end of the reflective process; it was another step in the inquiry process. Amber referred to reflection as a cycle. Alicia indicated that our interview was a reminder to her that reflection should be on-going and that one should not let things drift to the back or else small problems could become larger ones:

> Sometimes we get so busy in what we're doing we think great problem solved. Check. When it's something that we probably need to do follow-up on because if we don't, sure enough that creeps back up and then it is right there on top of your desk again.

Overall, taking intelligent action involved trying new things which often included risk taking, gathering evidence to test new ideas and practices, and making modifications when necessary. This was a cyclical process.

In summary, as elementary school administrators created conditions for instructional improvement, they engaged in the scientific inquiry approach. They first

paused to gain perspective, analyzed problems, and tested hypotheses by taking intelligent action. Pausing and analyzing experiences aided in problem solving and allowed participants to make informed decisions. Testing was seen as a cyclical process of experimentation, evidence gathering, and modification. Reflection was a rigorous disciplined process that the principals used to create conditions for instructional improvement.

Social Influences: Community interactions

Community interaction is a characteristic of reflective practice that highlights the importance of sharing and learning from others in a community of practitioners (Rodgers, 2002). Community interaction emphasizes the learning community as a way to collaborate and gain perspective on experiences. Interacting with others enhances learning and enhanced learning leads to improved practice. Essential to authentic and open community interactions is trust (Osterman & Kottmamp, 1993; Forsyth, Adams & Hoy, 2011). When trust levels are high, people are more apt to share information and learn from others. Learning communities and professional relationships were common social conditions referenced by the principals as important for reflective practice. Common social influences for principals included interactions with principal colleagues, mentors, and teachers to facilitate teacher learning.

Principal to principal. As principals discussed the value of community interactions, they noted the importance of having an opportunity to learn from other principals. Principals found informal conversations with other principals valuable but difficult to initiate and sustain. They felt the need for more opportunities to connect with principal colleagues in informal ways. Amber said, "I think the most valuable reflection

of leadership certainly comes from other principals, and there are so many fabulous ideas out there and there's so little time to talk to each other." She explained that the most valuable time is not regimented but rather often occurs in casual conversation.

Amber believed that interacting with other principals in a casual setting removes some of the barriers and defenses that block authentic conversations. She noted that honesty and authenticity were vital to the learning process. Amber further stated, "It [learning] has to come from principals. You learn a lot from parents and from students and you learn a lot from your teachers; but, I think you learn more about leadership from other leaders." For example, she shared a story about a persistent problem of how to keep parents from picking students up early at the end of the day. For years, nothing helped to alleviate the problem, but after speaking to another principal at a meeting, Amber was able to find a solution. A principal from another school told her that she put a sign on the door stating that no children were allowed to leave between 2:20-2:45 p.m. Amber implemented the school policy and had a significant decrease in early pick-ups. This simple solution speaks to how interactions with colleagues can lead to effective remedies to problems.

Similar to the value Amber placed on learning from other principals, Alicia learned the most about leadership through her informal interactions with colleagues. She noted there were principals she could call "at the drop of a hat" to discuss ideas and to seek help. Collegial conversations were an outlet for Alicia to release stress, to grow professionally, and to learn from others. Carlie echoed Alicia's opinion about conversations with principal colleagues: "I get my best kind of reflective practices from talking with other principals." She also talked to her counselor often but wished that

these conversations were more structured: "You know that's too bad that we can't chisel out some consistent time to sit down and share ideas." She believed that she could learn new, useful practices from other principals but could not find time for this collaboration. She described her interactions with colleagues as assurance that everyone faced similar issues and challenges. Collegial support helped Carlie keep perspective on important issues to address.

Rochelle also spoke about the importance of learning from colleagues. She discussed having principal colleagues within and outside of her district who she frequently would call to discuss ideas or to seek guidance. She stated that sometimes she deliberately discussed situations with her out-of-district colleagues rather than principals in her district because she believed the distance allowed her outside colleagues to provide more objective feedback. Rochelle said she could ask colleagues outside the district hard questions because they were not emotionally vested in the people with whom she worked. Principals valued interactions with principal colleagues as a way to generate knowledge on practices supportive of student needs and teaching effectiveness. As valuable as collegial interactions were for principals, finding time to engage in conversations remained difficult.

Mentor to principal. Just as principals learned from colleagues, they valued interactions with mentors as a source of learning and growth. Carlie mentioned the science training she received as a teacher as influential to her learning. The process afforded her access to instructional coaches who served as her mentors. She engaged in science professional development for 7 years and some of the training was on peer coaching and mentoring. This training helped her look at how to have reflective

conversations with people and how to ask non-threatening questions. As she transitioned from teaching and worked in professional development, she was exposed to good mentors who cultivated her capacity to reflect on teaching and learning. She was able to observe how her mentors interacted with teachers around instructional issues.

Rochelle credited a mentor for demonstrating how to reflect on practice. She noted, "I don't think I understood the importance of reflective practice until I had a mentor and someone who modeled that for me and helped me understand how powerful it could be to school change." The mentor taught Rochelle always to ask the questions, "How much academic learning time do you see and what is causing that to happen?" Rochelle learned how to stay focused on these questions while watching students engage in instructional activities. After observing her mentor conduct classroom observations, Rochelle practiced the process with her mentor until it became automatic. She stated, "Now when I go into the classroom, I'm looking at the children instead of the teacher, and I'm looking for the level of academic learning time." Then she further would question herself during the observation by asking, "Do I think they know the objective? Are they actually manipulating the content at 95% success?" Then, Rochelle would ask teachers to tell her what they thought they were doing to make that happen.

At the time of the interview, Rochelle had begun modeling the process she learned from her mentor with her teachers. She accomplished this in part through "shopping for academic learning." This process allowed Rochelle along with a group of teachers to periodically conduct classroom observations together. She explained that teachers were now learning to engage in reflective practice by asking themselves the very

same questions she learned from her mentor. She stated that she applied this practice to many aspects of leadership.

Principal to teacher. The data suggested that principals also learned from their interactions with teachers. As Amber discussed some of the formal structures in her school that facilitated principal-teacher interactions, she mentioned a Positive Behavior Support team that met monthly to examine school procedures. She also spoke of an end-of-the-year meeting with teachers that was held to discuss "what has worked and what hasn't worked." Additionally, Amber indicated that team leaders met weekly to discuss what was working, what was not working, and how they could make the school better. To learn from teachers, Amber noted, "You have to surround yourself with good people." She stated that there were a few trusted teachers she could informally "bounce things off of." She described a typical conversation as such: "Can you talk to me about this? What do you think?" She said that she engaged in these conversations to gain perspective, "There are so many times when it's one person hearing the problem or seeing it." Talking to a trusted faculty member helped Amber consider other perspectives and to search for the underlying cause of situations.

Alicia believed that relationships are the foundation for learning from teachers. She said that teachers felt comfortable coming to talk to her on a regular basis. Relationship-building was one of Alicia's strengths. She explained, "If I don't have the personal connection, it's like I tell my teachers, if you don't have it with your kids and your families, you're already a step behind." She believed that it was important to be open and honest with her staff. She said that when her teachers attended district meetings, they often found that they were better informed than teachers at other schools.

She did not like to leave them in the dark. In addition to being open and honest, she involved her staff in the decision making process. She engaged in conversations with her staff from how to allocate the budget to how to structure professional development. Experiences like these allowed her to build relationships and empower her staff. However, these experiences were time consuming, and she stated, "Sometimes I wish I could shut my doors because I don't get anything done."

Carlie often informally reflected with her counselor. In reference to her counselor she said, "We talk a lot and reflect a lot about our behavior and our actions and the actions of other adults in the building." Additionally, Carlie facilitated formal interactions with teachers such as bi-weekly curriculum meetings, child study groups, and mid-year reflection meetings. These formal interactions focused on academics, the social/emotional needs of the whole child, and teaching effectiveness. Formal interactions focusing on the whole child and teaching effectiveness were ways Carlie learned from her faculty.

Rochelle said that her reflection gained "energy and power" when she was able to share it with two or three other people. She mentioned working with her site technology coordinator and building test coordinator to review various benchmark data reports. She also discussed a time when she faced a difficult decision about accepting federal funds. Rather than making decisions alone, she engaged her staff in a collaborative process. Rochelle stated, "Through some reflective opportunities with my staff for several weeks, it was a staff decision." Consequently, they rejected the money and were left with the statement, "Hope you get results." She regarded this as risky; however, she learned that by including the staff in the decision making process she would have more "buy in"

which increased her confidence. Overall, the importance of relationships was evident as principals facilitated formal and informal collaborative learning opportunities and confided in colleagues to gain perspective and/or make decisions.

Facilitator of peer learning. Data among the four participants suggested that they valued professional growth as an opportunity to improve instructional practices and meet the holistic needs of their students. Principals believed that professional development should largely be facilitated at the school site. Thus, they provided professional growth opportunities within school by facilitating opportunities for peers to lead and learn from each other.

Amber used her leadership team and Professional Learning Communities to structure conversations around student learning. Alicia provided opportunities for teachers to learn from each other during grade-level meetings and staff meetings. In addition, she took staff members to conferences and held them accountable for the information learned. She said of her staff, "If you go on a conference with Alicia you better be there to learn, to bring back and to present to the faculty." She stated that the conferences helped her and her staff stay abreast of the latest changes in education. At the time of the interview, Alicia's staff had recently begun a book on Differentiated Instruction and the previous summer she had taken some teachers to a Differentiated Instruction conference. Additionally, she mentioned using experts in her building and within her district for professional development support. Alicia stressed the importance of focusing on one or two areas of professional growth so teachers were not overwhelmed. Also, Alicia said it was important to find out the professional

development needs of her staff. She received a lot of input from the staff as she made decisions about the structure of professional development.

To encourage peer learning, Carlie provided opportunities for teachers to learn from each other through peer observation. Carlie and her school counselor provided coverage for the teachers while they observed other classes or mentored teachers. In addition, teachers participated in "whisper coaching." Whisper coaching involved a teacher and a peer visiting another teacher's rooms to observe a specific lesson/strategy and afterward discussing the observation. Finally, Carlie, like Alicia, had engaged her staff in a year-long book study on Differentiated Instruction. She was purposeful in planning the book study and incorporated reflection as a key component.

Rochelle believed that professional development should be on-going and that the principal should be actively involved. She promoted the growth of her staff through "shopping for academic learning," modeling lessons, engaging teachers in data analysis, developing action plans, providing two-way feedback to teachers, and conducting classroom walk-throughs. Rochelle believed that if her staff had to attend professional development for district curriculum or initiatives, she needed to have, at minimum, the same amount of training as her staff or more. She explained that often teachers had to attend a day-long training and the principals would receive a shorten 15-minute version at a monthly principal's meeting. However, she saw herself as a coach and believed that principals should be trained first and should receive more information, especially as it relates to coaching teachers. Rochelle learned the importance of the principal being the learner first so that she could relate to and support the efforts of her teachers. Rochelle

also facilitated peer learning among her teachers which allowed her to learn with her teachers.

Individual determinants: Attitudes

Organizational cultures can support reflective practice, but individual attitudes and behavior underpin one's willingness to reflect on performance. Rodgers (2002) argues that individual traits of wholeheartedness, directness, open-mindedness, and responsibility affect how individuals practice reflection. Wholeheartedness refers to ones commitment to their profession or practice. Directness refers to ones confidence in their performance as a result of prior success. Open-mindedness is the willingness to consider other perspectives to inform decision making. Responsibility refers to taking personal responsibility for ones thinking and actions. These attitudes were reflected among the principals in varying degrees, but the most evident attitudes were open-mindedness and responsibility.

Open-mindedness. Open-mindedness refers to ones' ability to learn and improve by embracing new information and trying new things (Rodgers, 2002, York Barr et al., 2006). When educators are open-minded, a collaborative culture of professional learning can be fostered. For example, when asked about the barriers to reflection, Amber explained the importance of being open and having a disposition of life-long learning. She stated, "I think there are some leaders that feel like they know it all and they don't need to learn anything else. And yet, true educators learn something new every day." Amber referenced many examples that demonstrated she was honest about the needs of her school and open to change. She was open to learning alternative sources of funding to help the students at her high poverty school. Based on information produced by others

and reflection on student needs, Amber started a foundation to provide supplementary resources to the school. The foundation is thriving with a recent donation of $33,000 and has allowed her to improve her school and the opportunities for students.

Alicia mentioned that when she became the principal at her current school it was important for her to be open in order to build relationships with her staff and to gain teacher buy-in. She mentioned being an open book and being honest with her teachers. For example, she shared the importance of involving teachers in decisions about the school budget. She is transparent about the school budget and she provides teachers with an opportunity to give input into how the budget should be spent. She said that teachers were shocked when she initially asked for their input. One teacher said, "Why are you looking at me? We've never been asked how we want to spend the money." Although this level of input had not been the norm in the past, the teachers were receptive. Alicia learned that being open and embracing shared decision making empowered teachers and aided in building relationships.

Open-mindedness to Carlie is the ability to be flexible within varying situations. Carlie believed that people have to always try to seek new ways of doing things to improve their practice. Carlie states:

> There's always new information or a new strategy a new way to try something. And I think a reflective person thinks that way. "Adaptive" I think would be a good word to describe it- that you're constantly evolving or adapting your practices or your attitude.

Open-mindedness was evident as Carlie discussed how she interacts with teachers and students to gain perspective about student learning. Carlie discussed the importance of

considering multiple data sources and not getting punitive with her data but looking at the "whole-child." To illustrate, Carlie mentioned the importance of learning about students through daily work samples. She discusses the importance of being open to comprehensive performance measures that capture student learning as well as the effect of structures and processes on teaching effectiveness.

Rochelle learned to become open minded. Open-mindedness was not her initial practice when it came to instructional challenges. Initially, Rochelle was quick to offer solutions to problems but learned the value of considering multiple perspectives and opinions on specific situations. She learned that engaging her teachers in conversations about their practice enhanced her learning and the learning of the staff:

> I guess problem solving to me is more like guiding and facilitating than it is about offering a solution. I think the best problem solvers are bound in the metacognitive processes of thinking about why something happened. What do I want the outcome to be? What wasn't good about that? Why wasn't I getting what I really wanted?

Rochelle learned that she could attain desirable student results if she was able to engage herself and others in conversations about their practice. Rochelle described the process of engaging her staff through coaching and using structured questions to evoke thoughts as a way to provide a consistent language on ways to improve instructional practices.

Responsibility. Responsibility refers to one's ability to take personal responsibility for their thinking and actions. Personal responsibility implies ownership and a greater awareness about the consequences of interactions and decisions. Each participant described an internal drive towards school improvement. They displayed

commitment to their practice by taking responsibility for their actions. Amber communicated a strong sense of personal responsibility as she discussed her students and their families. She states,

> Who else wants to serve the family that's homeless? And you go, '"Oh I'm sorry, we're a school, we can't help you."' Well, no, you have to help them. And you have to help them with food, and you have to help them with resources, and you have to help them because if they are not fed, and they are not warm, and they're not safe, they can't learn.

Amber felt a deep sense of commitment to her school community and carried that responsibility with her daily. Her deep sense of responsibility promoted reflection because of her drive for continuous improvement and improving the well-being of the whole-child. She understood that her responsibility to students stemmed further than academics. She believes that it is her personal responsibility to be kind to parents, to greet brand new families, and to have an open door policy for conferences. She views her position as one of service to students and families. Amber stated, "I always felt like I needed to be a servant and so I'm there to serve. I'm there to serve the people, I'm there to serve their children and I'll do whatever it takes."

Similar to Amber, Carlie discussed her responsibility to teach the whole child. She discussed meeting basic needs such as clothing and feeding students and teaching them citizenship and social/emotional skills in addition to academics. Carlie stated, "I think being a reflective practitioner is someone who looks at all of those different aspects and how they inter-play to help kids become successful." Carlie's statement described

reflective practitioners as those who are passionate and take responsibility for all aspects of student learning and well-being.

Alicia identified accountability as a motivating factor toward reflection. She smiled as she said, "And also my desire to be perfect, which is well ingrained in me." Personal responsibility for Alicia stemmed from an internal accountability she felt for the achievement of students. Rochelle, like Alicia, possessed strong internal accountability for the success of her students. She stated, "I hate to fail. I hate not getting results. I hate the feeling of it." She described taking personal responsibility for student results and personally considering how to improve outcomes as well as working with teachers to consider how to improve. She explained that she loved looking at outcome data:

> I love being able to study it and talk about it and talk about how it happened or why it happened. And I love the investigation of the conditions of learning and what it is that helps kids to really be engaged and helps them get to school and want to be at school.

In summary, these participants were open-minded and took responsibility for their actions. Principals discussed being open to new information and trying new things. They also displayed great personal responsibility to life-long learning and to helping students, families, and teachers succeed. Principals' deep sense of responsibility expressed their intrinsic motivation towards meeting the needs of their students and continuous improvement.

Learning from Experience

The section on systematic thinking used Dewey's (1933) ideas on reflective practice to describe the primary objects of principal reflection, the reflection process, and

source of influence. Data for this section are described using Schon's framework on learning from experience. Schon (1987) argues that once ones knowing-in-action has been challenged, learning from experiences follows a process of reflection-in-action and reflection-on-action. Reflection-for-action, a fourth type of reflection was identified as an extension of Schon's work (Greenwood, 1993; Butler, 1996; McAlpine & Weston, 2000). These processes describe how principals reflect on their instructional leadership before (for), during (in), and after (on) action.

Reflection-for-action

Principals need to react quickly and swiftly to many issues and problems that arise during a typical school day. Swift decisions and actions are largely programmed responses to reoccurring events that require little reflection. Other decisions surrounding instructional leadership, however, require considerable thought and reflection for their potential effect on teaching and learning. When practitioners cannot rely on programmed responses, Schon (1987) argues knowledge needs to come from reflection. Reflection-for-action occurs as practitioners reflect on experiences and existing knowledge in anticipation for a future event (Greenwood, 1993; Butler, 1996; McAlpine & Weston, 2000). Principals in this study largely used planning for instructional improvement as a vehicle to reflect on future instructional practices.

Each principal expressed how reflection on upcoming events constantly occupied their thinking. For example, Carlie stated:

> I constantly wake up with things going. I don't want to. I tell myself, now we're going to go to sleep tonight, and we're not going to think about anything. It doesn't work, and constantly I will wake up just out of a dead sleep in the middle

of the night, and think, oh I gotta do this or this needs to be done or I should talk to someone about that.

Similar to Carlie, Rochelle laughingly discussed returning to work after a break:

> The Saturday and Sunday before we return, I'm taking Tylenol PMs to try to get some sleep because it's the revving up of this is coming up. I've got to do this. It's hard to be quiet now. It's hard to sit and do nothing in life because there's always something that needs to be done, and that's a shame. I think that's a disservice to myself. I think I need to work on that. There's something else to do [laughter].

Constantly thinking about issues is different from the type of reflection-for-action associated with instructional leadership. Principals used a planning process as the primary vehicle to reflect on future instructional processes and practices. As participants discussed reflecting prior to events, the common theme was the importance of being proactive or planning ahead. Amber explained that she met with her team over the summer to make decisions regarding the next school year. She said decisions were made to improve the school year. She noted that she relied on past experiences to inform future outcomes. Amber's team meetings reflected her belief in being proactive. In addition, Amber noted that conferences and workshops were a great way for her to gain ideas as she plans ahead towards improvement. Alicia discussed the importance of reflection becoming an everyday part of life; thus, it became a way to handle issues proactively rather than having to be reactive.

In comparison to Alicia and Amber, Carlie was more apt to reflect before action when she "can kind of see in the horizon." She said that she reflects the most after

"rethinking the day." However, Carlie recognized reflection-for-action as a way to be proactive:

> If I can tell that something is coming down the pike toward me, I will spend a lot of time trying to deal with it proactively because I find when you do that, I spend a lot less time on those issues cleaning up and re-communicating all those kinds of things.

Carlie also noted the continual process of reflection and how she is always thinking ahead. She stated, "I think reflection is constantly happening, and it's exhausting to try to think of everything all the time – it's pretty tough."

Rochelle found reflecting before action to be quite challenging even though she believed it was most critical. She felt that she should be thinking before acting but found that distractions often got in the way. Rochelle stated,

> …because our time restraints are so intense that we do a lot of problem solving and crisis management, so we're doing a lot of thinking about things after they have already happened or while we're in the middle of them- rather than where we see ourselves in 6 months. You know, I really should be already into the processing of next fall.

She described some activities that she should have already started reflecting on for the next year such as looping classes who have achieved a strong teacher student relationship, but she admitted that "time is very much consumed with today or tomorrow instead of next week." The lack of time was a common barrier for reflection-for-action. Principals viewed thinking ahead as a valuable practice but acknowledged the challenge of making time to reflect for action.

Reflection-in-action

Numerous situations evoked reflection-in-action for principals. Principals discussed reflecting during instructional observations, professional development, conferences, and several other events that a normal school day brings. While reflection-in-action occurred regularly for principals, many principals considered this to be spontaneous thinking and found it important to pause before acting

Amber identified reflecting during practice as extremely challenging. She stated, "I think [reflection] during [action] is like trying to think when you're under fire and so I think it's most difficult [to reflect] during, that to me is almost impossible. You're constantly kind of cataloging." This statement reflects the daily pressures and challenges that principals face as they are inundated with information. She further explained the importance of taking time to pause and create a plan before acting. Similarly, Alicia stated that she reflected the least during action because she did not have pre-planning time.

Although challenging, the principals recognized the importance of reflecting in action. Specifically, principals referred to pausing as a strategy that enabled them to calm their emotions so they could pursue a more rational and less emotional course of action. Carlie's comments represent the shared sentiment of the four principals. She noted, "I think if you're not careful, your emotions can get tied up into it, and you might not make sound decisions because you're thinking emotionally." As a result, she tried to pause and purposefully question herself. She tried to consider other perspectives so that she would not simply react but would instead respond appropriately. This statement provides a lot of insight into how Carlie engaged in reflective practice. To avoid making an emotional

decision, she said that she stopped and purposefully questioned herself to try to gain a better understanding of the event, situation, or problem. She tried to "make sense" of the situation by considering other perspectives and tried to review how the situation originated. Carlie's process demonstrated that reflection on practice influences how she reflects in practice, suggesting that one's experiences can aid in spontaneous decision-making.

Similar to the other participants, Rochelle found reflection-in-action to be a challenge and relied heavily on her reflection-on-action to inform her reflection-in-action. She saw her ability to reflect on action as a strength that allowed her to respond appropriately to various situations. One example that she shared was about undesirable benchmark results. She stated, "Let's look at this and figure out specifically what strategies and skills the kids need so that the next time they have a similar test, we can actually get some data." After she went through this reflective process and engaged her teachers in this process, she believed that she and her teachers would be better equipped to respond and adapt to "in the moment" instructional challenges as they prepared for the upcoming benchmark assessment.

In summary, each participant found reflection-in-action to be challenging because it caused them to make quick decisions. They mentioned the importance of pausing and thinking prior to decision making. They also found reflection-on-action which involves accessing prior learning experiences to be helpful in informing their present action.

Reflection-on-action

Reflection-on-action refers to practitioners reflecting on information about past events. Principals like managers in other organizations, have an abundance of

information on past performance to analyze. They identified reflection-on-action as being the most prevalent and valuable form of reflection because it was a process to evaluate actions and progress toward meeting the holistic needs of children and improving teacher effectiveness. Reflection-on-action also informed reflection-for-action.

The principals shared that they engaged in reflection-on-action more often than the other types of reflection. Reflection-on-action described rehashing past experiences. Amber stated that she reflected the most on past experiences because it allowed her to see if what she tried actually worked. She spoke of conferences and interactions with other principals as a way to learn from the past experiences of others. She appreciated learning new methods, but she found ideas that she knew had been tested and actually worked in the school setting to be particularly valuable.

Alicia mentioned that she engaged in reflection with teachers. For example, after looking at one teacher's student progress reports, she noticed that almost every student was making a D or an F in social studies. She asked the teacher to meet with her so that they could review the progress reports together. She asked the teacher, "What's going on? You've got all of your kids in three classes making Ds & Fs." She communicated to the teacher that when the majority of students have failing grades, it is a reflection of the teacher and not the students. The students obviously did not understand some of the course content, and she helped the teacher go through the reflective process. She asked, "Can you think why this would be?" The teacher replied, "Well, we did our work-sheet the other day and they all failed it." Alicia then asked the teacher why she did not re-teach the content and allow the students to redo the assignment. Alicia said that the

teacher looked at her and said, “I can do that?” Alicia said, “Yes” and led the teacher through the reflective process, of questioning her practice. Alicia asked, “If we’re not being effective, what can we do to be more effective?” She indicated that she let the teacher know that she also went through similar questioning about her practice. This vignette illustrates how Alicia and the teacher were able to reflect on past teaching practices to identify changes to future actions. It allowed the principal to provide a time for the teacher to pause and evaluate past experiences and gain perspective on unmet student needs.

Carlie noted that she reflected the most after an event or situation. She said she was always, “rethinking the day.” She talked about lots of sleepless nights and always having things on her mind. She stated, “It’s like paranoia or something. It’s gnawing at me to think about stuff. I’ll go home and think about the staff meeting today and I had three teachers out and wondering if they’ll be here.” Similarly, Rochelle noted that she reflected the most after an event or situation. She said that reflecting after an event helped her make predictions about the future. For example, she discussed reflecting on a benchmark assessment, which allowed her to know what to expect in the future about that particular assessment. Overall, principals placed a strong emphasis on examining their thinking and behaviors.

Summary

In summary, this section identified the emerging themes based on accounts of how principals engage in reflective practice to create conditions for improved teaching and learning. Themes were organized by the reflective practice framework adopted for this study. The two properties of reflective practice include systematic thinking and

learning from experience. Data were organized with these reflective practice properties to allow for ease of comparing principal experiences with characteristics of reflective practice.

The systematic thinking property of reflective practice outlined how principals made meaning of complex phenomena, constructed knowledge, interacted socially, and identified individual attitudes. Data suggested that as the principals made meaning, their objects of reflection were the whole child and teaching effectiveness. Principals constructed knowledge through their interactions with changing circumstances, mistakes, improvement processes, and research based practices/literature. Principals engaged in rigorous disciplined thinking by first detecting problems, gaining an understanding of the source of problems, and then taking intelligent action. Community interactions included interactions between principals, mentor to principal, principal to teacher, and identified the principal as the facilitator of peer learning. Principal to principal interactions in the informal context was seen as one of the most valuable ways for principals to gain knowledge. Finally, the participants employed the attitudes of open-mindedness and responsibility.

The learning from experience property of reflective practice outlined how principals reflect before (for), during (in), and after (on) action. The contextual factor of time was evident within the findings on learning from experience. Reflection for action and reflection on action were both closely tied to the principal's reflection on the holistic needs of the students, their families, and teaching effectiveness. Principals described reflection-in action as the most difficult characteristic of reflection because of pressure to make a decision "in the moment." The goal of principals during times of reflection-in-

action was to create an emotional buffer to make more rational and less emotional decisions. Reflection-on-action is the characteristic that the participants engaged in the most, and it also informed their reflection-in and reflection-for action. Reflection-on-action allowed participants to analyze their experiences. Rochelle shared how she used achievement data to consider how she can improve and facilitate conversations with teachers to improve teaching effectiveness. Alicia discussed the importance of teachers reflecting on their practice to improve effectiveness and enhance student learning. She provided an example about a teacher who had all of her students earning Ds and Fs on their progress report in three classes. Alicia used their conversation as an opportunity to foster reflection on the teacher's practice.

Overall, the findings served to inform the research questions for this study. The findings identified the emerging themes based on accounts of how principals engage in reflective practice to create conditions for improved teaching and learning. A discussion of the findings follows.

CHAPTER V

DISCUSSION

Introduction

The findings described how the four instructional leaders at the center of this study used reflective practice to advance effective teaching and to create learning environments responsive to the whole child. Open mindedness and personal responsibility motivated principals to better understand student needs and to support teachers in instructional improvement. Principals noted that changes in their environment often triggered reflection, and they engaged in reflection with others to gain perspective, to vent, to be affirmed, and ultimately to learn new ways to facilitate instructional improvement. This chapter discusses the findings as they relate to facilitators and barriers to reflective practice, advances implications for principals and district leaders, and recommends future research.

Facilitators of Reflective Practice

Principals in this study engaged in reflective practice as they created conditions for improved teaching and learning. Individual principal characteristics interacted with social factors to facilitate reflection. Findings suggested that open-mindedness was a critical individual determinant to reflective practice while unexpected outcomes and cooperative relationships were essential social factors. These facilitators of reflective practice are discussed in more detail.

Open-mindedness

Open-mindedness consists of one's desire to consider multiple perspectives and to understand that error may occur even when employing practices perceived as effective (Dewey, 1933; Zeichner & Liston, 1996). Senge's (1990) classification of two types of

openness, participative and reflective, has implications for findings from this study. Participative openness refers to "the freedom to speak one's mind" (p.277). This type of openness depicts an outward display of ones' views. On the other hand, reflective openness "leads to people looking inward" (Senge, 1990, p.277) for a deeper understanding of problems, events, phenomena, behavior, or effects of one's action. Although participative openness was apparent, reflective openness was the type of reflection that the principals in this study engaged in the most. Principals were open to thinking critically about how their decisions and actions affected teaching and learning.

Open-mindedness was evident in how principals responded to changing circumstances and mistakes. Additionally, they were open to new processes for improving performance, to reaching out to mentors and colleagues, and to evidence about the effectiveness of their own leadership. Open-mindedness in these instances referred to the principals' perspectives that problems were opportunities to study teaching and learning and to consider multiple viewpoints on how to meet the holistic needs of children. This was evident as principals encountered unfamiliar problems and learned that their conventional practices were not working to change outcomes in new environments. As a result, principals discussed the importance of operating by trial and error and evaluating the effects of their experimentation. They were open to change and understood that mistakes were part of the learning process. In many ways, open-mindedness was a gateway to new ideas and information. Specifically, open-mindedness facilitated the reflective process for principals and provided more learning opportunities as they interrogated results of their decisions.

Open-mindedness can be difficult to develop. Langer (1989) notes that habitual behavior and intractable mental models can limit thinking to familiar ideas and existing cognitive structures. She argues that mindlessness blocks innovation, limits progress, and wastes opportunities. Open-mindedness, in contrast, allows people access to endless solutions to problems and new opportunities. This was true for principals in this study. Although principals were perceived as effective instructional leaders by teachers and peers, they maintained an open mind to ideas, performance evidence, critiques, and instructional problems.

Principals in this study made reflective openness a priority through their desire to learn and their willingness to take risks. For example, Amber described a teacher on her faculty whose reading scores were "sky high" and asked "Why are they [test scores] going sky high in her class?" Her solution was to allow others to observe her teaching. Rochelle described how she is always asking teachers questions about teaching and student performance to learn how practices can be adapted to better meet student needs. Carlie talked about using a child study process as a way to examine behavioral and academic challenges through questions such as: What are you trying to do? What have you done in the past? What are you thinking about doing in the future?

Each principal was open to trying new things but the veteran principals (Amber and Rochelle) were more willing to take risks with their instructional leadership. Most likely the level of comfort with risk taking for veteran principals came from years of experience and success as a building principal. As Amber and Rochelle took risks, they opened themselves up to new opportunities to improve conditions for learning at their schools. For example, Amber started a foundation and Rochelle rejected a large federal

grant to continue a literacy approach that her school had already implemented. Alicia and Carlie, the novice principals, both discussed having autonomy in their decision making and being open to multiple ideas and strategies. They both also expressed openness in regards to interacting with teachers. Alicia and Carlie emphasized the importance of "buy-in" when presenting change to their staff as new principals. All participants mentioned analyzing their practices regularly to improve their schools and their own leadership abilities.

Overall, being open-minded allowed the principals to challenge their beliefs, knowledge, and experiences to improve student learning. Challenging oneself is important because as Bright (1996) stated, "It is only through the process of inquiry that awareness, understanding, and competence are developed and realized" (p. 177). The participant's commitment to openness and inquiry influenced their ability to engage in reflective practice.

Unexpected Outcomes

Principals in this study indicated that unexpected outcomes and changing demographics triggered reflection. Unexpected outcomes varied from principal to principal, but common problems centered on undesirable test scores, poor attendance, and lack of basic needs being met. Principals felt the changing social context of their schools contributed to deep reflection as well. Change and unexpected outcomes caused them to reflect and to seek new practices that were more responsive to student needs.

Langer (1989) discusses how too much outcome focus at the expense of understanding processes can promote reactive behavior. This was initially true for many of the principals; however, as a result of their experiences they learned how to

compensate for a lack of valid process information by engaging in reflection. Reflection generated new information and knowledge about practices, processes, and learning conditions. For example, Amber describes changing from a middle class school to a high poverty school. She initially thought that she could continue similar practices but was shocked by the differences between high poverty and low poverty schools. Consequently, she made many mistakes and ultimately had to learn ways to support effective teaching and student learning. An unfamiliar context and unexpected outcomes led Amber to think systematically about root causes of problems and plausible strategies to address performance needs. Alicia discussed reflecting with her staff about attendance data and possible solutions to improve attendance. Carlie and Rochelle discussed reflecting on the capacity of their staffs to meet the changing and diverse needs of their students. Overall, principals often acted routinely until unexpected circumstances and outcomes occurred. Unanticipated outcomes prompted these principals to reflect on meeting the holistic and diverse needs of their students.

Relationships

Reflective practice can be engaged in both individually and collectively. The literature, however, suggests that the more people involved in reflective practice the greater the improvement in practice and potential for increased student learning (York-Barr et al., 2006). Reflective practice as a collective activity allows for issues to be considered through different perspectives. Rochelle's statement echoed this point when she said that her reflection gains "energy and power" when she is able to share it with two or three people. Consequently, trusting relationships are essential supports for reflection. For example, the participants discussed their interaction with others by using

words such as “confide,” “trust,” and “strong relationships.” The presence of trust enabled principals to be open and honest about mistakes, affirm their actions, and gain new perspective on issues and challenges.

Given the importance of trust and relationships it was not surprising that principals identified the informal context as the most effective environment to foster reflection. Reflection is not a practice that can be mandated by policy or controlled through formal regulations. Rather, it is nurtured through social environments that support collaboration, healthy norms, and continuous improvement (Lazzarini, Poppo, & Zenger, 2001). Principals in this study found support for reflection through their connections with principal colleagues. They learned the most from principal colleagues who were going through similar challenges. Additionally, they found informal conversations with colleagues to be more authentic and honest. Amber valued collegial interactions so much that she discussed her desire for some sort of principals’ retreat, explaining that such an informal environment would allow principals to drop their defenses and open up about problems. Amber believed that she could ask real questions and truly gain answers relevant to her school context in more informal settings.

Similarly, Alicia noted that her relationships with other principals were vital when problems arose. Discussing problems with peers from other schools allowed Alicia to “vent” and to relieve pressure so that she could respond to situations in a rational and objective way. She said that she could call other principals anytime. She noted that she had learned a lot from what other principals were doing and that these interactions helped her grow as an instructional leader. Carlie confirmed the importance of principal-to-principal collaboration in informal settings by saying, “That’s too bad that we can’t chisel

out some consistent time to sit down and share ideas." Though she believed that she could learn useful practices from other principals, time constraints made collaboration difficult. She said that her interactions with others affirmed that she was not alone and gave her the assurance that everyone was facing challenges and similar issues. Rochelle further confirmed the importance of informal communication with colleagues as she discussed her connections outside of the district and the importance of talking to objective colleagues who had no relation to her school or district. Overall, principals described interactions with their peers as valuable for their reflective practice and they desired more opportunities to interact informally with colleagues.

Mentors were also important triggers for reflection. Mentors modeled reflective practice for the principals through actions and discussions that provided an example of how to think systematically about student needs and teaching effectiveness. Carlie developed her reflective capacity by participating in peer coaching and mentor training as she facilitated science professional development for the district. Rochelle discussed her development of reflective competencies by stating, "I don't think I understood the importance of reflective practice until I had a mentor and someone who modeled that for me and helped me understand how powerful it could be to school change." Mentoring relationships are vital and can help new principals excel through the learning process as they gain fluency in their role.

Barriers to Reflective Practice

While open-mindedness, unexpected outcomes, and relationships facilitated reflective practice, experiences of the principals also highlighted barriers to their reflection. Barriers were largely the result of environmental pressures placed on schools to do more to improve student achievement with fewer resources. The findings suggested that contextual challenges of time and accountability pressure infringed on the depth and breadth of the principal's ability to engage in reflection. Below, these barriers to reflective practice will be discussed.

Time

For individuals to learn from experiences, they must have time to reflect on past and future actions so that strategies to achieve expected outcomes emerge from knowledge generated from experience (Coombs, 2003; Edwards, 1999). The importance of reflective time to aid learning is demonstrated in the organizational culture of Japan. Senge (1990) described a different management culture between the United States and Japan by sharing his conversation with a manager of a Japanese firm. According to the manager, no one interrupts a person sitting quietly in a Japanese firm, but when the person is up and moving others feel comfortable approaching him or her. The manager stressed that thinking is an important part of the Japanese work experience. In contrast, in the United States, when a person sits quietly others assume they are not doing anything important and can be interrupted. Work in the United States is often associated with observable action more so than quiet thinking. As Senge (1990) considered the busyness of Americans, he asked rhetorically, "How can we expect people to learn when they have little time to think and reflect, individually and collaboratively" (p. 303). Senge

concluded that the contrast between the United States and Japan reflects differing cultural norms between the two societies and partly explains why management practices in Japan are often seen as more effective.

Limited time to reflect affects management and leadership in schools as well. Schon (1987) believes that expertise resides in teachers and principals, but to develop expertise school professionals need opportunities to learn by reflecting on their experiences. Most leaders are often too busy running schools and have little time to think about practices (Senge, 1990). They are focused on addressing immediate issues or responding to mandates that take away from time devoted to studying teaching and learning in their school. In the United States, action by a leader is often seen as more productive than time spent thinking quietly. If action is valued more than reflection, it is hard to structure time for thinking systematically about teaching and learning.

Principals in this study consistently discussed the importance of reflection only to follow their statements with laments about insufficient time. Rochelle noted that thinking before action is challenging because of time constraints. She explained that she often found herself thinking after experiences but noted that she should have been more proactive and been thinking ahead to events that were coming down the line in six months. She said, "Time is very much consumed with today or tomorrow instead of next week." This statement depicts how inundated principals were with instructional and logistical priorities and how demands restricted their time to reflect. Reflective interactions were usually based on an immediate need rather than having a pre-planned time allotted for principal collaboration and reflection. The lack of prioritizing time

served as a barrier to creating meaningful interactions that build knowledge and increase understanding.

With immense time constraints, principals largely reflected on action. Reflecting on action was seen as a way to examine experiences and was the mode of reflection most employed by principals. Principals found ways to maximize the limited time they had for reflection. For example, Carlie said that usually reflection is "on the fly." She also noted that quality time was more valuable to her than the quantity of time. Carlie stated,

> It takes not necessarily a lot of time, but it takes purposeful time- that you can really sit down and block some other things out- to focus on your behavior or your actions. I think we live unconsciously a lot. We go through the motions and actions and a reflective person tries to live consciously- to think about their actions, behaviors, words. And so I think it is trying not to get in a rut of doing things unconsciously.

Similarly, Rochelle reflected on a conference call she recently had with a group of colleagues. She noted,

> For every face-to-face interaction that I have with colleagues or parents or teachers, I think I get back ten-fold from that when I purposefully make that happen. We tend to be doing it when you are multi-tasking and you're on the fly, and you send out an e-mail with a yes /no answer. And that kind of practice gets the job done- but I just get so much more back- from a more reflective eye-ball to eye-ball through sit down conversations.

Rochelle believed reflective interactions had become harder to facilitate because of the increasing pressures of the profession. When time constraints limit reflection,

McGregor and Salisbury (2001) and Stoeckel and Davies (2007) found that setting aside a regularly scheduled time to reflect on experiences can be beneficial to learning. Without time to reflect on practice, experiences are not likely to enhance knowledge or understanding and lead to improved performance (Schon, 1987; Filby, 1995; Maxwell, 2008).

Accountability

Accountability pressure, similar to time constraints, hindered reflective practice. Accountability policies have correctly raised awareness of student achievement, but in many cases they have done so at the expense of conditions supportive of reflective practice (Darling-Hammond, 2004). Partly in response to accountability pressure many urban schools and districts have turned to prescribed practices and pre-defined models that limit the professional discretion of school professionals to study and change processes that affect instructional practices (Daly & Finnigan, 2010). As Nonaka (1994) notes, reflection and knowledge development are constrained when formalized structures limit autonomy, remove flexibility, and suppress initiative. Principals in this study encountered many challenges to reflection that were attributed to accountability pressure.

The participants spoke about the increasing pressures of accountability and how it had influenced their practice. One challenge was to reflect on the development of the whole child when many central administrators were largely concerned with test scores. This challenge mirrored Zhoa's (2009) words: "Theoretically schools can teach more than what is mandated. In reality schools must ensure that they do well in areas that affect their reputation and standing (p. x)." Amber described how accountability affected her intentions to focus on the "whole child." She commented,

> So what about all the other things [subjects other than reading and math]? Well it's all very well and good, so say we're going to do equal amount of time. But when you have a school that has not made Adequate Yearly Progress (AYP) last year and has made AYP for years and years, but didn't make AYP, by golly, we're going to have to do reading and math- because that's the testing game.

Similarly, Carlie emphasized the importance of test scores. She understood the implications for her school if achievement scores were low. She said,

> It's where the rubber hits the road. I don't know anything else to say about it, it's the bottom line in the culture we live in. It's how you're accountable and it's how others see value in you. I'm only as valuable as the score I can pull.

Carlie felt strongly that test scores reflected on her school and that in our educational culture the standard of educational excellence is gauged by test scores.

Alicia found changing expectations at the district, state, and federal level limited her reflection. She said, "As we get our data and we see what the expectation are, we have to continue to adjust our practices, which means we need to reflect on them and find the ones that are working and work to develop those that aren't." She felt that accountability pressures tended to narrow her reflection to prescribed instructional practices and achievement data. It was important for Alicia, as well as the other principals, to bring the focus of their reflection back to the needs of the whole child as accountability pressure distracted them from factors that affect student achievement.

Though burdened with accountability, these principals realized that the equation for student success involves more than test scores. They understood that the social and emotional needs of the students were vital as well as a host of other needs. They were

aware that students need to have access to a comprehensive curriculum and experiences that engage them in the learning process. Accountability pressure can lead principals to the belief in a best practice if they are not mindful of myriad factors affecting teaching and learning. Langer (1989) argues that once people embrace a single belief, their "minds snap shut like a clam on ice and do not let in new signals" (p. 18).

Implications for Principals and District Leaders

Implications for school administrators as they engaged in reflective practice and design systems supportive of reflection were derived from findings of the study and the extant literature. Specifically, implications respond to the objects of reflection, facilitators of reflection, and barriers to reflection. Principals in this study often explained the importance of reflecting on the whole child and effective teaching. While reflection on the above objects provides insight into teaching performance, it becomes easy to neglect how factors and conditions in the broader school environment influence teaching and learning. An implication for principals is to also target performance of the instructional system as an object of reflection. District leaders can support reflective practice of principals through structures and processes that remove barriers to continuous reflection and provide performance information that can shed light on how the various elements within the instructional system are working together to deliver effective teaching and learning.

Reflecting on the Instructional System

Although reflection on student and teacher performance is important to understanding teaching and learning, a singular focus on students and teachers can exclude how the larger instructional system influences what teachers do in the classroom.

Curricula, collegial interactions, instructional philosophies, resources, formal structures, and several other factors affect what teachers teach, how they teach, how they manage their classrooms, and how they improve their instruction. Consequently, reflecting on how the instructional system affects teaching and learning can provide principals with knowledge that has consequences for continuous improvement. Darling-Hammond (2009) describes an effective instructional system as:

> A set of elements that, when well designed and connected, reliably support all students in their learning. These elements ensure that students routinely encounter well-prepared teachers who are working in concert around a thoughtful, high-quality curriculum, supported by appropriate materials and assessments – and that these elements of the system help students, teachers, leaders, and the system as a whole continue to learn and improve. (p. 15)

Hoy and Forsyth (1986) define elements of the instructional system as consisting of the formal organization, informal organization, individuals and role groups, the teaching task, and resources inputted from the external environment. What is important from a system's perceptive is the congruence among system parts so that one part operates in harmony with other parts (Hoy & Forsyth, 1986). Instructional systems optimize performance when parts balance and are congruent (Hoy & Forsyth, 1986; Tushman & Nadler, 1989). Neglecting the instructional system as a unit of reflection can exclude valuable information that can help principals understand how structures, processes, and practices contribute to school performance.

By reflecting on congruence of the instructional system, principals can study how rules, regulations, processes, authority, resources, and individual behaviors interact to

shape teaching and learning. For example, many schools have embraced the concept of learning communities as an improvement strategy. Positive effects of learning communities are partly a function of formal structures. Formal structures that limit interaction time, mandate lessons, and require a specified instructional approach are not congruent with the social organization of learning communities (McLaughlin & Talbert, 2006). Learning communities benefit from professional autonomy, flexibility, and teacher commitment (Darling-Hammond, 2005). Formal constraints to teaching restrict knowledge creation and impede instructional innovation. In this case the instructional system would be out of balance; the formal structure is incongruent with a social organization that is responsive to instructional improvement. The point is that reflection on the instructional system requires attention to the interaction of system parts.

The principals in this study understood the importance of taking a holistic view of teaching and learning but often reflected on parts of the instructional system and not on how well the parts worked together. To illustrate, principals spoke about limitations of achievement data but their reflections on how achievement data aligned with the instructional philosophy of the school was limited. Further, teacher evaluations were mentioned as a source of reflection but not the alignment between evaluation and instructional supervision. A final example relates to changing economic conditions of students. Principals reflected on student needs but there was little mention of how school structures, processes, and climate were adapting to unmet student needs.

The need for reflection on the system for teaching and learning is evident as Carlie discussed that she is not even looking to improve in her test scores this year. She just wants to try to hold ground. She discussed the increase in cut scores and the

tremendous pressure that she feels. Her school has always been a high performing school and she does not want to be the one to bring the school down. To depict the impact of test scores, she explained how her teachers are already beginning to "wind themselves up." She tries to keep things in perspective for them but never the less, the pressure is real. Carlie mentions a recent interaction she had with a teacher by saying, "I had one in tears when she opened her benchmark and saw the format and said this is not how I was teaching it and oh my God what am I going to do." She discussed the panic that the teacher felt about not teaching the content exactly "like the test." This experience will impact the teacher's instruction. Instead of allowing these interactions to shape and/or dictate teacher and principal practices, there should be reflection on the teaching and learning system to ensure alignment of elements for the purpose of increasing the school's capacity to perform during times of change.

Reflection on the instructional system can lead to a better understanding of the human and social capacity to deliver quality learning. Capacity is defined as the degree to which resources and processes enable school professionals to turn information into knowledge and knowledge into actions that addresses unmet needs of teachers and students (Crowther, 2011; Forsyth, Adams, & Hoy, 2011; Hargreaves, 2001). Capacity is not a natural resource in schools; it is nurtured and grown through professional cultures that support the continuous study of teaching and learning (Hargreaves, 2001). As principals reflect on the system of teaching and learning, one of the first indicators of increased or decreased capacity is the congruence of structures and processes that guide teaching (Hargreaves, 2001). For example, if teachers are expected to regularly engage in conversations with colleagues about teaching and learning but the formal structure

does not support this expectation, teacher interactions will not result in the type of knowledge needed to improve instruction. Capacity to meet the needs of students will be limited if teachers cannot learn from the knowledge and experiences of colleagues.

Reflecting on the instructional system has parallels to how physicians understand causes of health problems in patients. Physicians use observations, questions, tests, and other diagnostic indicators to understand how the body is working and to detect problems with normal functioning. In physical science this is often a static process and can follow predictable patterns. However, the case is very different in the educational system, where there are countless variables and unsteady circumstances. Unlike the world of medicine, education is not predictable and there are many variables that may contribute to certain outcomes. Consequently, a principal's reflection can reveal more about factors shaping teaching and learning if it covers the interaction of system parts.

Solely focusing on student progress does not provide a comprehensive view of a school's performance. The actions and interactions of teachers, students, and instructional resources provide helpful information to understand teaching and learning in schools (Cohen & Ball, 1999). Achievement indicators have relatively little improvement value without understanding how elements of the school social system affect knowledge development and teaching practices. Outcome indicators tell very little about performance in cases where organizational tasks are complex and work processes interdependent, such as with schools where teaching and learning are affected by different individuals, external conditions, and internal norms (Forsyth, Adams, & Hoy, 2011). By reflecting on the instructional system, principals can construct a comprehensive picture of their school's performance.

District Policies and Practices

There are signs that heightened external control of schools and school districts are giving way to a more balanced framework that shifts professional autonomy to states, districts, and schools. The Reauthorization of the Elementary and Secondary Act provides a glimmer of hope. Proposed revisions emphasize the holistic development of children, supporting families and communities, targeting diverse learning needs of students, supporting safe and healthy students, promoting teacher and leader effectiveness, achieving college and career readiness, and fostering innovation (U.S Department of Education, 2010). The intent of accountability policies is likely to shift from punitive measures for not meeting yearly performance standards to continuous measurement and recognition of growth and improvement. In addition, more flexibility will be given to state and local educators to be innovative in finding solutions to local instructional challenges. The areas in the Blueprint are vital components within the teaching and learning system and provide a more comprehensive view of schools.

Reflective practice takes on more importance when the control and coordination of teaching and learning embraces professional autonomy and local decision making. Consequently, district administrators can support reflective practice of school leaders by using structures to facilitate principal reflection. Four possible areas of district support derived from the experiences of principals in this study include: fostering collegial relationships, allocating formal time to reflect, providing recognition for effective organizational performance, and using process indicators to measure how parts of instructional systems function. While relationships and time were explicitly mentioned in the findings, recognition and process indicators were identified as supports to enable

principals to study how the larger instructional system contributes or hinders the delivery of learning.

Collegial interactions. The principals in this study mentioned the informal setting as an effective way to learn from their experiences and the experiences of principal colleagues. They also felt structures and demands impeded on regular social interactions with other administrators. Given the importance of social interactions for knowledge creation and learning, and the value principals in this study placed on relationships with peers and mentors, districts can consider how to restructure professional development and meeting times to support relationship building and collaboration among principals. Formal opportunities are often the only chance that principals have to interact or collaborate with colleagues other than their closest peers. Fostering relationships in the formal setting would allow principals to gain a broader perspective from other leaders with whom they might not otherwise interact which may lead to greater learning in the informal context.

Time. Time for reflection before and after action was an area of concern for participants in this study. Allocating purposeful time for reflection is an improvement strategy that can likely result in increased knowledge and capacity. Often, there is not time allocated for school planning nor is there time to reflect after an event because principals have moved on to their next task. Although principals attempted to make time for reflection, they did so mostly on the fly. That is, they reflected while doing. We can learn from the management culture in Japan by valuing the importance of time to think and reflect on experiences. Purposeful opportunities to pause and reflect personally and with others can accelerate learning. While experience is a great teacher, experience along

with reflection provides a deep understanding of phenomena that can positively inform future actions (Schon, 1987; Filby, 1995; Maxwell, 2008). Also, time to reflect on the implementation and effectiveness of initiatives is vital to school improvement. Reflective practice is a process of making meaning of phenomena and constructing knowledge. Without adequate time for principals to make sense of initiatives and understand the school's role in implementation, improvement efforts may not achieve intended outcomes.

Process indicators. Central administration can support reflective practice by measuring conditions in schools that reveal how instructional systems function. Performance data that only report outcomes are of little use if information does not reveal how patterns of actions and interactions shape processes, practices, and conditions associated with effective teaching and quality learning. Principals need to pay more attention to processes and the root causes of performance outcomes, but without data that explain how strategies are translated into practice, principals are left to conjecture and speculate about actual performance. School improvement is too important to be guided by conjecture. As principals reflect on the instructional system, process indicators can be one source of information that can reduce uncertainty in how parts of the instructional system are working.

Recognition. One area that was not explicit in the findings but provides implications for district leaders is the importance of school recognition. Focusing on the entire system will provide a balanced approach to performance which could allow district leaders to provide recognition to schools based on progress and growth and for outcomes other than standardized test results. Recognition often times equates to value as noted

previously by Carlie as she discussed the emphasis on test scores in relationship to the value that the district and/or society has on her school. She says, "It's how you're accountable and it's how others see value in you. I'm only as valuable as the score I can pull." This provides a generalized statement about the feeling of many educators in America. As a result, in an attempt to maintain the value of their school, high energy has been channeled to one element within the system which is assessment. However, without a well-designed and connected system of teaching and learning, school improvement efforts are short lived. Recognizing performance more holistically can help principals reflect on what is working and why it is working and such knowledge can be applied to other areas as a way to strengthen instructional programs.

Conclusion

Reflective practice consists of two constructs: systematic thinking and learning from experience. Instructional leadership describes a leadership domain where principals create conditions for improved teaching and learning. These two practices are heavily cited in educational literature as methods towards instructional improvement. Consequently, the goal of this study was to understand how principals who have been identified as effective instructional leaders engage in reflective practice to improve teaching and learning. Rather than identifying the benefits of reflective practice, which previous literature has already accomplished, the purpose was to describe specific processes and examples of reflective practice used by instructional leaders. The experiences of the principals revealed individual and organizational factors that facilitated reflection and barriers to their reflective practice.

The results of this study suggest that the principals' primary object of reflection was the whole child and teaching effectiveness. Principals adopted attitudes of openness and responsibility as they engage in reflective practice. Change in the principals' environment and mistakes also encouraged reflection. Additionally, collaborative relationships were seen as a valuable way of learning. The importance of learning in informal settings with other principals was a shared belief among the four participants. Another important finding was that mentors allowed participants to have a greater reflective capacity and taught them how to facilitate reflection with their staffs. In addition, this study provides insight into how these principals used reflective practice to create conditions for improved teaching and learning. For example, the principals engaged in reflective conversations with teachers which often focused on student

progress or instructional practices. The restrictive influence of accountability on reflective practice was obvious in the interviews and even more so during the focus group. Recommendations were made to set the instructional system as an object of reflection and to support reflective practice of principals at the district level by using structures to support collegial interactions, to formally allocate time for reflection, to provide principals and schools with process indicators that reveal the functioning of system parts, and to allow the performance information to provide a balanced view of each school allowing schools to be recognized and valued.

Future research on the reflective practice of principals can address limitations of this study. First, this study included participants in one Oklahoma school district. Future studies could be expanded to schools outside of the district and state of Oklahoma to gain further perspective about the engagement of reflective practice among educational leaders in diverse contexts. Differing district initiatives and state policies could influence the way principals engage in reflective practice. Second, this study was conducted with female principals in Title I elementary schools. As a result, it may be interesting to see if the object of reflection and barriers/influences in affluent schools are similar to those in high-poverty schools. Perhaps, also, there are contrasting issues of focus at the middle or high school level or between male and females. Third, since external pressures were evident among the participants, it is recommended that district/state leaders study the influences/barriers affecting the engagement of reflective practice among school leaders. Additionally, with the shift to a national curriculum and a new assessment system, it may be insightful to find out if accountability continues to serve as a barrier to reflective practice for principals and if principals feel that these systems help them to better serve

the needs of their students. Furthermore, this study focused on two veteran and two novice principals. There were some differences among the two pairs. Generally speaking, the veteran principals were more apt to take risks, and the new principals were very aware of the external pressures and personal implications for not performing well. Further study of levels of experience and reflective practice may be insightful in understanding how to support new leaders.

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APPENDIX A

PARTICIPANT DOCUMENT PROFILE

Personal Information	
Gender	
Ethnicity	
Age	

Experience	
Highest level of education/majors	
Certifications	
Years teaching/subject	
Years as an administrator/ level	
Years at current site	
Others positions held	
District(s) employed by	

Other Information	
What Influenced you to enter the field of education?	
Describe yourself in three words or less.	

APPENDIX B

INITIAL INTERVIEW PROTOCOL

1. What does reflective practice mean to you and how would you define reflective practice?

2. What influences you to reflect on your practice? From your experience, what are the barriers to reflective practice? Provide examples. How do you overcome them?

3. How do you reflect on your practice and for what purpose?

4. What does instructional leadership mean to you? How would you define instructional leadership? What role does reflective practice play in your context as an instructional leader at your school?

5. Who is the focus of your reflection as it relates to your influence on creating conditions for improved teaching and learning? Why?

APPENDIX C

INITIAL INTERVIEW: RESEARCHER CASE STUDY PROTOCOL

Thank you for agreeing to be a part of this study. I am a doctoral student at The University of Oklahoma and I am in the dissertation writing stage. My research topic is on the reflective practice of school administrators who have been perceived as effective instructional leaders. You have been chosen as a participant for this study because you have been identified as an effective instructional leader. As a result, I will conduct an in-depth interview to inform my research question: How do elementary school administrators who are perceived as effective instructional leaders engage in reflective practice to create conditions for improved teaching and learning? The interviews will be recorded and transcribed. Thank you so much for allowing me to interview you. This interview will focus on your knowledge and experience as it relates to the topic of study. I have several questions. Please ask me to explain further if you need clarity about any question.

*Need recorder
*Note pad
*Give the participant a copy to review the questions before starting
*Colored questions were not on the participant's interview protocol

1. Tell me a little about yourself? ***
2. Describe your current professional context (school, demographic, vision), challenges, strengths, opportunity. ***
3. What does reflective practice mean to you and how would you define reflective practice?
4. What influences you to reflect on your practice? From your experience, what are the barriers to reflective practice? Provide examples. How do you overcome them?
5. How do you reflect on your practice and for what purpose? How do you reflect? Questioning, trying new things, journaling, discussions. Why do you reflect?- professional growth, improve teaching and learning? What does the reflective process look like to you? (thought process, what strategies or activities do you employ, and with who?) ***
6. What does instructional leadership mean to you? How would you define instructional leadership? What role does reflective practice play in your context as an instructional leader at your school?
7. Who is the focus of your reflection as it relates to your influence on creating conditions for improved teaching and learning?
8. Overall, what role do you play in facilitating improved teaching and learning at your school? How does reflective practice contribute to your ability to create conditions for improved teaching and learning? ***

APPENDIX D

REFLECTIVE JOURNAL

Over the course of 3 weeks, please take the time to reflect on the topics below. I am interested in understanding your thinking and subsequent actions as they relate to these two topics.

- Talking to a teacher or teachers to promote reflection
- Promoting the professional growth of teachers

APPENDIX E

OPEN-ENDED QUESTIONNAIRE

1. How do you stay abreast of current educational issues in America?

2. What learning theories and/or instructional strategies do you and/or your school support as they relate to improving teaching and learning? What books or any other printed resources have influenced your thoughts about improving teaching and learning? Why?

3. What do you do to expand your skills related to creating conditions for improved teaching and learning? Why?

4. Do you have the autonomy to try new ideas as a school principal? If so, what is something that you have created or initiated to improve teaching and learning? What influenced your decision?

5. How do you make time to reflect on your practice? What specific activities or cognitive processes do you engage in to reflect on your practice? When does reflection usually occur?

APPENDIX F

FOCUS GROUP/CASE STUDY PROTOCOL

Thank you for coming today! As you know, the focus of this study is on the reflective practice of school administrators, specifically, administrators who have been identified as effective instructional leaders. You all have been chosen because you have been identified as effective instructional leaders, and I believe you will be able to purposefully inform the research question.

I brought you all together so that you can share with each other about how you engage in reflective practice. According to Leedy and Ormrod (2005), "The interactions among participants may be more informative than individually conducted interviews." So the format of this focus group is to allow everyone to respond to the questions and then allow time for questions or to make additional comments. Please write your question or comment down so you won't forget it. Your responses are valuable.

Before we start, I want to establish some norms. Everything that is stated during this focus group will be kept in confidence. The focus group responses will be recorded and transcribed both of which will be secured on my personal computer with a security password. Some norms include keep the group discussion confidential, be respectful of others' responses and talk time, and keep responses focused on the topic and within a 2-minute or less time-frame.

1. What experiences have caused you to be a reflective practitioner? Can one be taught to be reflective? If so, what would be the most important lesson you would teach a person? Why? If you answered "no," explain.

2. Describe an experience as it relates to improving teaching and learning where your thoughts were challenged? How did you "make sense" of the situation? How did you respond? Did your thinking change? If so, how?

3. Describe the problem-solving steps you typically employ when you are faced with a problem related to teaching and learning?

4. What role does data play in reflective practice?

5. What value or benefit do you find from your interaction/collaboration with teachers, principals, parents, community, and students? Who do you reflect with the most? And why?

APPENDIX G

FOLLOW-UP INTERVIEW PROTOCOL

1. Describe an experience in which you reflected before, during, and after taking action. Do you reflect most before, during, or after action? Why? Which do you find is the most challenging time to reflect? Why?

2. Where do you reflect most? Home, school, conferences, workshops—explain.

3. What successes have you had as a result of reflective practice?

4. Not only are you all well respected in the district, you are highly respected in your buildings. If you were to talk to aspiring or first year principals, what would you say if asked the question, "What do you think has contributed to your success as an effective instructional leader?"

*Participants may have been asked additional questions based on the initial interview and focus group. For example, in the follow-up interview I asked Amber to further explain a scenario that she shared in the initial interview so that I could have a "thick description" of her experience.

APPENDIX H

DATA DISPLAY SAMPLE: Significant Statements

Participants	**Meaning Making**	
	Significant Statements	**Question Asked**
Participant A	We focus on what's best for kids, not what's best for the adults- period. Is that best for kids, or is that best for the adults? "Well, when I focus on what's best for adults, then that ends up going down to what's best for kids." And that's not true. I think you have to always put the kid first – what's best for that child? – What's best for the children *in the school?*	Initial Interview: What influences you to reflect on your practice? From your experience, what are the barriers of reflective practice? Provide examples. How do you overcome? (Coded as meaning making)
Participant B	Sometimes you're so set on taking care of your scores and your this and your that and it's just as important to reflect on how your kids are doing emotionally, and all of those other things.	Initial Interview: What influences you to reflect on your practice? From your experience, what are the barriers of reflective practice? Provide examples. How do you overcome? (Coded as meaning making)
Participant C	I think that if I'm not real careful, I can get real legalistic with my data and I can become punitive out of desperation, and so I think that you also need some soft data. I don't know. You need some anecdotal notes. You need some personal experiences with kids.	Focus Group: What role does data play in reflective practice? (Coded as meaning making and rigorous disciplined thinking)
Participant D	When we talk about feeling the pressure of a business model, I think that business model comes into play and we have those conversations out of desperation. You know, looking for something that works other than looking more towards those models that address the whole child, like community schools.	Focus Group: What role does data play in reflective practice? The question was coded as meaning making and rigorous disciplined thinking. (Coded as meaning making and rigorous disciplined thinking)

- ❖ Wrote questions to align with the frameworks adopted for this study
- ❖ Chart made in Microsoft Word for each characteristic found in the reflective practice framework and Blasé & Blasé (1999) Instructional Leadership framework

- Significant statements correlating with the framework characteristics were organized into the chart- when statements were extracted they were highlighted within the transcript
- Significant statements analyzed for reoccurring themes- emerging themes color coded within the chart
- Individual narratives were written to analyze each participant's engagement in reflective practice
- Reoccurring words and preliminary themes were identified and organized into a chart (Appendix I)
- Then, I engaged in cross participant analysis (Appendix I)

APPENDIX: I

DATA DISPLAY SAMPLE: Cross Participant Analysis

Reoccurring words or themes	**Participant A**	**Participant B**	**Participant C**	**Participant D**
Risk Taking	X			X
Poverty	X	X	X	X
Whole Child	X	X	X	X
Changing demo	X	X	X	X
Teaching Effectiveness	X	X	X	X
Learning from others	X	X	X	X
Affirmation from colleagues	X	X	X	X
Accountability	X	X	X	X
Action research				X
Time as a barrier	X	X	X	X
Multiple sources of data	X	X	X	X
Spirituality	X			
Principal as the staff developer				X
Child study			X	
Site-embedded PD	X	X	X	X
Metacognition				X

- Recurring themes from significant statements and the individual narratives were organized into a table
- An X was placed in the cell if a particular theme was identified with that participant.
- After further analyzing the themes, significant and sub themes emerged. Some themes were inter-related and were collapsed within one theme. For example, learning from others/affirmation merged into a theme called Community Interactions which highlights various interactions such as principal to principal interactions. Multiple sources of data and accountability merged with the theme Whole Child.

APPENDIX J

HALLINGER AND MURPHY'S FRAMEWORK OF INSTRUCTIONAL MANAGEMENT (1985)

Defines the Mission	**Manages Instructional Program**	**Promotes School Climate**
Framing school goals	Supervising and evaluating instruction	Protecting instructional time
Communicating school goals	Coordinating curriculum	Promoting professional development
	Monitoring student progress	Maintaining high visibility
		Providing incentives for teachers
		Enforcing academic standards
		Providing incentives for students

APPENDIX K

MURPHY'S COMPREHENSIVE INSTRUCTIONAL LEADERSHIP FRAMEWORK

(1990)

Developing Mission and Goals	**Managing the Educational Production Function**	**Promoting and Academic Learning**	**Developing a Supportive Work Environment**
Framing school goals	Promoting quality instruction	Establishing positive expectations and standards	Creating a safe and orderly learning environment
Communicating school goals	Supervising and evaluating instruction	Maintaining high visibility	Providing opportunities for meaningful student involvement
	Allocating and protecting instructional time	Providing incentives for teachers and students	Developing staff collaboration and cohesion
	Coordinating the curriculum	Promoting professional development	Securing outside resources in support of school goals
	Monitoring student progress		Forging links between the home and the school.

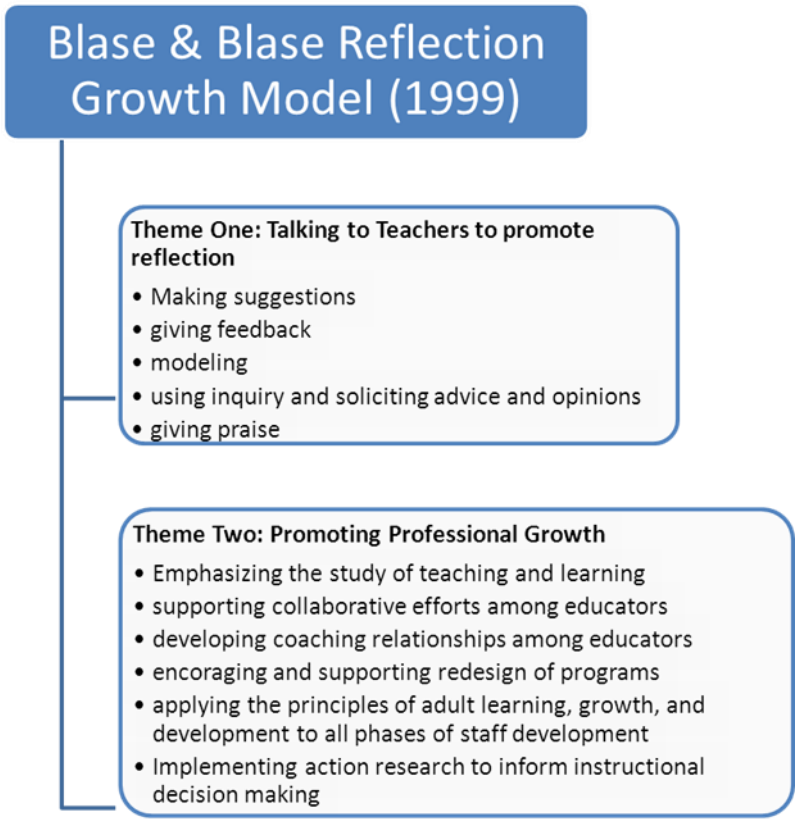
APPENDIX L

WEBER'S INSTRUCTIONAL LEADERSHIP FRAMEWORK (1996)

Defining the Schools Mission	Managing Curriculum and Instruction	Promoting a Positive Learning Climate	Observing and Improving Instruction	Assessing the Instructional Program
The instructional leader collaboratively develops a common vision and goals for the school with stakeholders.	The instructional leader monitors classroom practice alignment with the school's mission, provides resources and support in the use of instructional best practices, and models and provides support in the use of data to drive instruction.	The instructional leader promotes a positive learning climate by communicating goals, establishing expectations, and establishing an orderly learning environment.	The instructional leader observes and improves instruction through the use of classroom observation and professional development opportunities.	The instructional leader contributes to the planning, designing, administering, and analysis of assessments that evaluate the effectiveness of the curriculum.

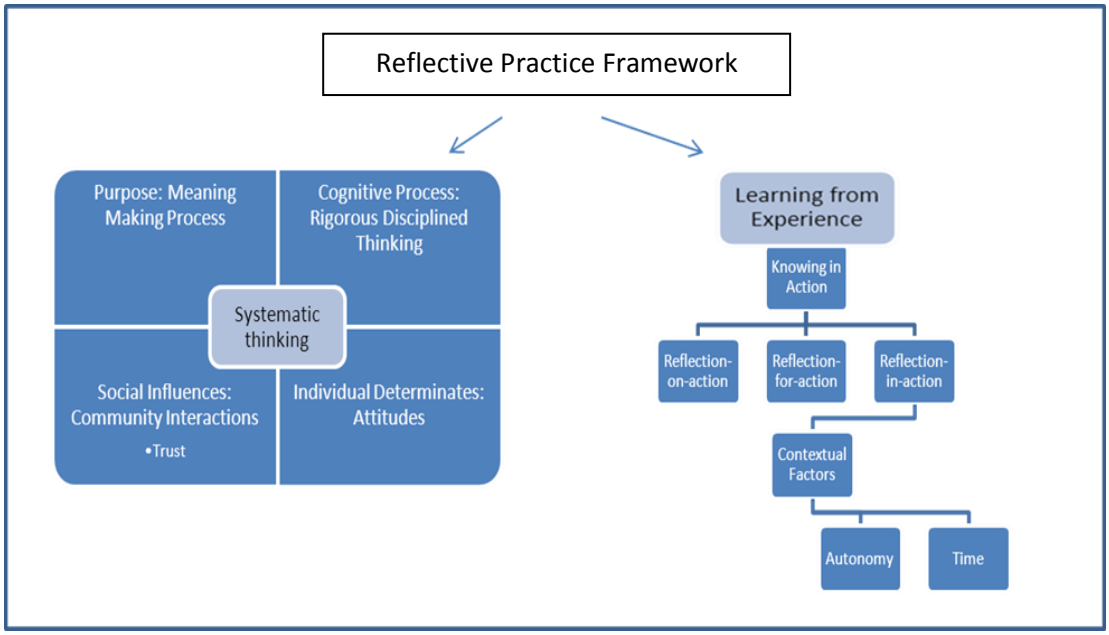
APPENDIX M

Blasé and Blasé Reflection-Growth Model (1999)



APPENDIX N

Reflective Practice Framework
(Dewey, 1933, Schon 1987, & Rodgers, 2002)



The University of Oklahoma

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION - IRB

IRB Number: 13297
Approval Date: January 19, 2011

January 21, 2011

Patrina Singleton
EACS
8029 W Parkway Blvd, Apt. 201
Tulsa, OK 74127

RE: The Engagement Of reflective Practice Among School Administrators

Dear Ms. Singleton:

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. This study meets the criteria for expedited approval category 6 & 7. It is my judgment as Chairperson of the IRB that the rights and welfare of individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46 as amended; and that the research involves no more than minimal risk to participants.

This letter documents approval to conduct the research as described:

IRB Application Dated: January 17, 2011 Revised
Other Dated: December 13, 2010 Tulsa Public Schools - IRB Approval Letter
Consent form - Subject Dated: December 07, 2010
Other Dated: December 07, 2010 Recruitment Email
Survey Instrument Dated: December 07, 2010 Questionnaire
Survey Instrument Dated: December 07, 2010 Follow-Up Interview Questions
Survey Instrument Dated: December 07, 2010 Focus Group Questions
Survey Instrument Dated: December 07, 2010 Interview Questions - Interview 1
Protocol Dated: December 07, 2010

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

The approval granted expires on January 18, 2012. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with an IRB Application for Continuing Review (Progress Report) summarizing study results to date. The IRB will request an IRB Application for Continuing Review from you approximately two months before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB office at (405) 325-8110 or send an email to irb@ou.edu.

Cordially,

Lynn Devenport, Ph.D.
Chair, Institutional Review Board