2013

Building Self-Directed Teachers: A Case Study of Teachers' Perspectives of the Effects of Cognitive Coaching on Professional Practices

Kevin S. Bjerken
Minnesota State University, Mankato

Building Self-Directed Teachers: A Case Study of Teachers' Perspectives of the Effects of Cognitive Coaching on Professional Practices

By

Kevin S. Bjerken

A Dissertation Submitted in Partial Fulfillment

of the Requirements for

the Educational Doctorate Degree

in Educational Leadership

Minnesota State University, Mankato

Mankato, Minnesota

April 2013

Abstract

This case study of a single school district aims to identify teachers' perceptions of how their professional practices have been affected after four years of receiving Cognitive Coaching. Cognitive Coaching was used in participants' professional development as a part of an Alternative Teacher Professional Pay System and included three observational cycles per year for four consecutive years with a certified Cognitive Coach.

Through focus group interviews and surveys, Cognitive Coaching was found to have multiple positive effects on professional development, according to the perspectives of the sample group. Themes of an increase in reflective practice, increased awareness level, and greater focus on specific students when planning are explained and provide detail through related subthemes. Participants also perceived limitations of Cognitive Coaching in the areas of providing clear instructional improvement ideas and were not convinced of its impact on increased student achievement.

This study revealed several teacher perceptions on the effects of Cognitive Coaching that were confidently tied to the ongoing endeavor for success in their professional development. The Cognitive Coaching practice within the context of this study has given way to a range of professional practices that teachers believed to be of value in their profession.

Acknowledgements

The contributions of others are what make research projects such as this possible. I owe a great deal of thanks to all those that have offered encouragement, space, and guidance throughout the project.

Thanks first to my dear God in heaven who has graciously loaned me the tools to think and organize academically while granting the freedom in life to pursue such a quest. Thanks to my dear wife, Maria, who altered her own activities in life and patiently waited as I worked apart from so much of what we love to do together. Thanks to Dr. Candace Raskin, my wonderful advisor, who guided, encouraged, and kept my professional and academic focus throughout the process. Thanks to dissertation committee members, Dr. Julie Carlson and Dr. Barbara Wilson, who provided precise feedback as suggestions to make certain of my success. Thanks to Dr. Chad Schmidt for all his assistance in creating accuracy in data collection for the case studied. Finally, thanks to all my family for your patience as I worked somewhat disconnected from normality of being a family member. You have all contributed greatly to the success of this paper. Thank you all.

Table of Contents

List of Tables

List of Figures

Figure

Chapter I

Introduction

Background of the Problem

In a profession where societal trends and evolving research are constantly shifting, one focus remains constant: the need for effective and continual professional development to meet the needs of a swiftly changing society. Which method of delivery is best for ensuring gains in professional practices continues to bring considerable disagreement (Futernick, 2010). Researchers have found that professional development in its traditional form does not produce the results needed for continued professional growth (Barnett, 2000; Darling-Hammond & Richardson, 2009; Dickenson, McBride, Lamb-Milligan, & Nichols, 2003; Donhost & Hoover, 2007). School districts remain tolerant of practices in professional development that are ineffective and superficial (Dickenson et al., 2003).

Evidence is needed to guide decisions on professional development so that wise choices can be made for students (Sparks, 2002). Unanswered questions remain on what forms of professional development increase student achievement (Killion & Hirsch, 2001). In order to find the value of professional development activities, they must be monitored and impact must be evaluated (Bubb & Earley, 2009). Sanders and Horn (1998) stated that teacher quality is the greatest factor contributing to student achievement. Given the importance of teacher quality, effective professional development of teachers is imperative.

Researchers are currently presenting models for professional development that include many of the missing elements of the traditional models which include but are not limited to Professional Learning Communities, Communities of Practice, and Cognitive Coaching. This study concentrated on Cognitive Coaching used in professional development as a means to guide teachers in growth that is meaningful, applicable, and creates a system of values for life-long professional learning.

Cognitive Coaching is constructed with a goal of providing teachers with the ability to self-monitor, self-analyze, and self-evaluate (Garmston & Linder, 1993). Created in 1984 by Arthur Costa and Robert Garmston, Cognitive Coaching is a reflective model of professional development designed to strengthen performance by improving a person's capacity for self-directed learning (Costa & Garmston, 2002). It allows the persons being coached to become efficient at judging their own behaviors and processes in order to identify and make changes for self-directed growth.

The mission of Cognitive Coaching is: "to produce self-directed persons with the cognitive capacity for high performance, both independently and as members of a community" (Costa and Garmston, 2002 p. 16). Self-directed persons were further described as resourceful, engaged in cause-and-effect thinking, able to persevere when confronting challenges, and able to predict future performance with a higher degree of accuracy.

Research has identified multiple encouraging outcomes when using Cognitive Coaching to guide professional development. Batt (2010) wrote about how Cognitive Coaching was used as a follow up practice to the traditional workshop training. In this

study, Teachers of English Language Learner (ELL) students attended a traditional format workshop in order to be introduced to and trained in the practices of an educational model called Sheltered Instruction Observation Protocol (SIOP). Once teachers completed the workshop, it was found that fifty-three percent of the teachers attending the workshop implemented the instructional methods of SIOP. After Cognitive Coaching was added to guide and coach teachers in the methods learned at the workshop, Batt (2010) found that implementation of the SIOP instructional methods increased significantly reaching 100 percent of the participants. The teachers in this study expressed that it was well worth their time to participate in the coaching process and that the Cognitive Coaching phase added substantial value to the traditional training.

The Petaluma School District in California implemented the Cognitive Coaching model over a four-year period. As a replacement to more traditional staff development approaches, the switch to Cognitive Coaching produced positive results (Cochran & DeChesere, 1995). They implemented this approach because traditional workshops and teacher training were not producing the desired level of changes in curriculum and classroom practices. The Petaluma School District also had the need for the creation of a more positive environment for teaching and learning. Cochran and DeChesere discovered that that all teachers could build on their own expertise through Cognitive Coaching, and the district changed as a result of its use.

Costa and Garmston (2002) provided several arguments for the use of Cognitive Coaching in continuous teacher development. First, they wrote that teachers need and want support. As schools become increasingly dependent on student test scores to

measure success, teachers need a means to guide their success. Cognitive Coaching attempts to give teachers needed skills to reflect before, during, and after instruction to sharpen skills and improve the quality of instruction to learners.

Second, Costa and Garmston (2002) offered that innovations in education do not reach full potential without a coaching component. They believe that new methodologies in teaching presented in a traditional workshop format will often reach only five percent implementation, but with the addition of Cognitive Coaching, implementation of the new methodologies can be expected to reach ninety percent. Consistent with this claim, Batt (2010), as mentioned earlier, observed one hundred percent implementation with the practice of Cognitive Coaching.

Third, Costa and Garmston (2002) explained that coaching is required in order for establishing and maintaining a collegial environment. Traditionally, the hierarchical system in education is structured to determine teacher quality through a system of evaluating teachers on a specific set of criteria. Such a system assumes a *one size fits all* model without considering teacher strengths, teaching style, or student population served. As standards are raised and the expectations grow for teachers, the need for creating collaboration among peers to solve the problems became clear to Costa and Garmston (2002). Additionally, Garmston and Linder (1993) pointed out that school reform requires collaborative cultures. He noted that building collaborative practices into professional development is critical, and school systems should consider alternatives to hierarchical models such as clinical supervision.

As a means to offer perspective on the ongoing discussion of professional development, this study focused on professional practices that changed as a result of Cognitive Coaching over a four-year period of time in a single school district. Professional practices included independent reflective practices, lesson implementation, changes in planning methods, and other practices that surfaced as result of the data collected. The purpose was not to determine a value for or against the Cognitive Coaching model used by the school district to be studied, but to identify what practices or changes in practices have resulted from the period of Cognitive Coaching to be researched.

As resources dwindle and expectations and accountability increase, districts must make use of effective models to support staff development and professional growth to keep up with the needs of an ever-changing student population. Researchers must offer evidence of effectiveness in professional development to meet the needs of a vastly diverse group of professionals in their quest for effective teaching practices. An in-depth look into the results of one school district's changes in professional practices as a result of Cognitive Coaching added perspective to the ongoing discussion of options for ensuring high quality education for all.

Problem Statement

After a period of four years of Cognitive Coaching, perspectives of teachers of the school district to be studied regarding the effects on their professional practices were unknown. The question of *What are teachers' perspectives of how professional practices are affected by Cognitive Coaching?* was answered through this case study of this school

district. The problem in existence was that, after a period of four years of Cognitive Coaching with teachers, precise results of this practice had not been researched with depth and remained unidentified. Ultimately, this case study aimed to identify practices of tenured teachers that were perceived as changed as a result of Cognitive Coaching practices.

Purpose of the Research

The purpose of this study was to identify teachers' perspectives of the effects of Cognitive Coaching on professional practices in a single school district after a four-year period of time. Cognitive Coaching was one component of an Alternative Teacher Professional Pay System adopted by the school district to be studied. This study considered professional practices ranging from teachers' use of self-reflection to classroom behaviors in the delivery of instruction to students. Specific areas of professional practices were determined as they presented themselves and are included in the results.

Research Question

This study examined what teachers identified as changes in professional practices as a result of having received Cognitive Coaching over a four-year period as a part of their ongoing professional development. Professional practices that surfaced included the areas of planning, feedback, reflecting, heightened awareness, student achievement, and specific student focus. Detailed professional practices were identified through the research and are shared in the findings.

The research question for this study was: What are teachers' perspectives of how professional practices are affected by Cognitive Coaching?

Significance of the Research

Information from this study is able to assist practitioners in planning and designing professional development opportunities with the consideration for Cognitive Coaching. Findings of teachers' perceptions of what professional practices have changed as a result of Cognitive Coaching are useful as qualities sought out in the design of professional development planning for schools and districts. This study also served as an impetus for further research on the use of Cognitive Coaching as a segment of professional development in school systems. Findings contributed to the research in existence on Cognitive Coaching and added a case of negation or affirmation to the collection in academian existence.

Limitations of the study

As with any case study, this research was limited to the sample group identified in a single school district. Generalizability should only be considered for similar sample groups with similar demographics. Though it was the hope of the researcher to provide insight that can be transferred to other locations, this study only considered those in this group.

Creswell (2009) stated that it is often the case that the presence of the researcher may bias responses from participants. The researcher conducted the focus group interviews, so the possibility existed that participants offered responses that were biased to their expectation of what the researcher was looking for. Further, the researcher was a

certified Cognitive Coach who spent two years directly observing and coaching faculty in this school district. However, efforts were made to encourage only those who have not worked directly with the researcher as a Cognitive Coach to participate in the focus group interviews.

Since Cognitive Coaches are human, it should be recognized that there was no guarantee in consistency of delivery by the coaches to completely honor the framework of Cognitive Coaching. Though all received formal training or completed certification, the personal choice to waiver from the conversational framework of Cognitive Coaching was possible.

Participants in the study likely had a variety of personal preferences in levels of trust and willingness to reflect about their teaching to others. Since Cognitive Coaching assumes that people are reflective, those with conversational preferences that are otherwise may have existed.

Definition of Key Terms

Attrition. The gradual reduction of workforce personnel through retirement, resignation, or death.

Autonomous. Acting independently or having the freedom to do so (Apple Dictionary, Version 2.2.3)

Clinical supervision. Five steps used in teacher evaluation including preconference, observation, analyzing data from observation, post conference with teacher, and critique of previous four steps (Glickman, Gordon, & Ross-Gordon, 2007).

Coachee. The person receiving Cognitive Coaching in order to grow professionally.

Coaching cycle. The planning meeting, observation, and post observation conference that are elements of the Cognitive Coaching framework.

Cognitive Coach. The person using the elements of Cognitive Coaching to coach another person.

Cognitive Coaching. A nonjudgmental, interactive strategy focused on developing and utilizing cognitive processes, liberating internal resources, and accessing the five states of mind as a means of more effectively achieving goals while enhancing self-directed learning (Costa & Garmston, 2002, p. 401-402).

Cognitive Coaching session. The interaction between coach and coachee during a meeting that uses the elements and practices of Cognitive Coaching.

Holonomy. An individual's cognitive capacity to be autonomous and interdependent at the same time (Costa & Garmston, 2002, p. 403).

Interdependence. The need for belonging and connectedness (Costa & Garmston, 2002).

Mediator. One who places himself or herself in the middle between a person and some event or situation and intervenes to enhance self-directed learning (Costa & Garmston, 2002).

Metacognition. Awareness and understanding of one's own thought processes (Apple Dictionary, Version 2.2.3).

Professional practices. Practices to be identified through this study that may include but are not limited to planning, decision-making, reflecting, problem solving, collaborating, lesson design and implementation, student monitoring and assessment, goal setting, and self-direction.

Reflective questioning. Questioning another person using techniques to push that person for deeper and more meaningful reflection in order to identify meaning, causation, or gain ability in independent reflective practices.

Traditional professional development. Professional development typically in the form of workshops or lectures commonly over a one or two day duration taking place outside of school day with subject matter that is engineered by those other than the individuals attending the event.

Chapter II

Review of the Literature

Introduction

This chapter presents a review of literature on the issues, challenges, and needed changes of traditional professional development models along with the need to utilize models that meet the needs of teachers for constant, effective professional growth. The review of the literature illustrates the need for teacher's professional development to initiate changes in professional practices to better serve the student population. Cognitive Coaching is defined and discussed as a practice to present a more personalized, focused, and meaningful professional development opportunity for teachers. Elements, goals, and behaviors of Cognitive Coaching are provided to familiarize the reader with this model for continuous professional growth. Findings of previous studies on Cognitive Coaching are offered to paint a picture of what changes can be expected through the use of Cognitive Coaching as a professional development tool.

Traditional Professional Development

Though there is little argument against the need for professional development for teachers, it is commonly written that professional development in its traditional form produces far less than desired (Barnett, 2000; Darling-Hammond & Richardson, 2009; Dickenson et al., 2003; Donhost & Hoover, 2007). Referred to as "go and get it," "sit and get," (Dickenson et al., 2003, p. 164) or the "one-shot workshop" (Darling-Hammond & Richardson, 2009, p. 47), the traditional model of professional development involves teachers leaving the classroom to attend a workshop or similar event (Dickenson

et al., 2003). In reference to traditional staff development models, Dickenson et al. (2003) wrote: "School districts are too tolerant of practices and activities that are superficial, ineffective, and disingenuous. At best they are wasteful of school resources and at worst, even harmful" (p 163). Although high quality teaching is clearly visible in today's classrooms, the same level of staff development is seldom observed (Donhost & Hoover, 2007). With substitute pay and the cost of attendance, traditional staff development where teachers attend a workshop or class and are expected to implement the new ideas into their professional practices are costly and ineffective (Dickenson et al., 2003).

Most persons concerned about quality education in our country also endorse quality professional development (Perry, 2001). "Professional development in education is a career-long process" (Leach, 1996, p. 101). Professional development should not be in the form of a single event or course of study, it should be continuous from the early career to late stages of professionalism (Leach, 1996). The population served by education is constantly changing, and teachers are responsible to meet the needs of every learner (Alber & Nelson, 2010). In addition to spending more working hours in the classroom, American teachers do not receive the quantity of on the job training activities as do their international peers that perform higher (Sawchuk, 2009).

Successful student learning in the twenty-first century will require more effective professional learning than traditional models have offered (Darling-Hammond & Richardson, 2009). Finding ways to motivate and encourage teachers to constantly improve and make needed changes is imperative (Barnett, 2000; Gusky, 1985).

Traditional forms of professional development are commonly in opposition to the very recommendations they make to teachers about quality instruction (Donhost & Hoover, 2007). Staff development is a form of instruction and needs to meet the needs of the teachers as learners. Simply increasing funding for the professional development of educators will not help due to the habit of following what has always been done (Dickenson et al., 2003). Specific concerns and needs related to traditional professional development models are presented as follows.

Isolation. Effective professional development cannot be done in isolation (Darling-Hammond & Richardson, 2009; Leach, 1996; Sawchuk, 2009). It must be integrated into the learning environment and model expected practices and result in learning. Both Leach (1996) and Sawchuk (2009) identified the importance of professional development taking place in schools and classrooms. School-based learning taps into the collective knowledge of others (Sawchuk, 2009) and supports a culture of constant improvement for school reform (Darling-Hammond & Richardson, 2009). Too often, teachers consider traditional models of professional development to be an external requirement in place to satisfy some "bureaucratic imperative" (p. 163) when its purpose should always reflect improved student learning (Dickenson et al., 2003). Leach (1996) asserted that there must be a link from the learning of professional development to actual practice in order for growth to take place. Professional development needs to provide opportunities for active, hands-on learning (Darling-Hammond & Richardson, 2009).

Lack of application. Traditional models of professional development have not shown effectiveness for long-term improvements of practice (Alber & Nelson, 2010;

Dickenson et al., 2003; Joyce & Showers 2002; Perry, 2001). Perry (2001) avowed that though teachers may show enthusiasm and excitement for the content of new training, most do not make the changes recommended or do so only temporarily. Commonly, success of efforts for professional development activities has been a measure focusing on teacher satisfaction or attendance (Dickenson et al., 2003). Just exposing teachers to new ideas through workshops or groups activities without a measure of actual implementation has been considered good enough. Further, Alber and Nelson (2010) suggested that when researchers find that content of professional development is not transferred to the classroom; teachers are often blamed as being skeptical, resisting change, or lacking skills.

Joyce and Showers (2002) stated that only ten percent of workshop attendees change anything about their teaching from the workshops. Traditional professional development activities seldom contain an ongoing coaching component and result in only five percent implementation (Costs & Garmston, 2002). With a purpose of making change to improve professional practices, clearly traditional models of professional development have not shown effective.

Support and follow-up. Traditional professional development models typically include a brief workshop or lecture but include no support or follow up which does not address the needs of the teachers (Alber & Nelson, 2010). Joyce and Showers (2002) indicated that traditional professional development does not in itself lead to long-term improvements in practice. Models of professional development that are sustained over time are more effective that their one-day counterparts (Darling-Hammond &

Richardson, 2009). Effective professional development must include a support system that provides a framework for encouraging and sustaining learning among teachers, (Engstrom & Danielson, 2006; Gusky, 1985). As with many areas of education, time is a resource that must be afforded for effective professional development. Professional development must include the provision of scheduled time for teachers to work with colleagues with follow-up and collaboration on the practices to be implemented (Bubb & Earley, 2009; Engstrom & Danielson, 2006; Miller de Arechaga, 2001). Darling-Hammond stated that teachers are still attending short one and two day workshops rather than ongoing support models of professional development, which actually change practices to increase student achievement (as cited by Sawchuk, 2009, p. 7).

Collaboration. The importance of collaborative practices in education is significant (Danielson & McGreal; 2000; Eger, 2006; McLymont, 1998). Professional development that is collaborative and collegial is supported by research (Darling-Hammond & Richardson, 2009). Engstrom and Danielson (2006) indicated that an important support mechanism for continuous learning is collegiality among staff. Barnett (2000) postulated that programs that share ideas and materials are better at meeting teacher needs. In opposition to the traditional professional development model, collaborative practices that are an integral part of professional growth give teachers opportunities to discuss ideas and problems that surface on an ongoing basis (Leko & Brownell, 2009). When teachers share and acknowledge learning and development with others, professional improvement will be continuous (Bubb & Earley, 2009).

There exists a necessity for collaboration between researchers and practitioners (Alber & Nelson, 2010) as well as between teachers and those making the decisions about what professional development content will be (Engstrom & Danielson, 2006). Determining the content of professional development activities is a decision that directly affects teachers. All stakeholders of an educational organization that are affected by decisions should also be included in the decision making process (Cochran & DeChesere, 1995).

Personalization. Professional development must meet the requirements of teachers and align to their goals and needs (Leko & Brownell, 2009). Alber and Nelson (2010) posited that learning targets planned in professional development activities are often of little use to the teachers. Whether or not teachers accept the intended value of professional development activities is questionable (Dickenson et al., 2003).

The power of personalized learning is a common theme when addressing student achievement and should be incorporated into the expected learning of teachers as well (Bubb & Earley, 2009). Bubb and Earley (2009) wrote: "Schools should move toward a more personalized approach to staff development and learning" (p. 37). Darling-Hammond and Richardson (2009) also supported personalized learning for professional development and explained that professional development must be related to teachers' specific contexts and curriculums.

Personalization takes into account the needs and experiences of the individual teacher as learner. Barnett (2000) and McCarthy (2006) both stipulated that the needs of the teachers must be understood and used in designing and planning for professional

development. Miller de Arechaga (2001) added that the needs of the institution must be included in the planning process. Leach (1996) declared that the individual professional aspects of the learners' experiences are an important part of planning professional development programs. Traditional *drive-through* professional development opportunities typically present *one-size-fits-all* content that does little to recognize the individual needs and experiences of the teachers.

Professional development models must move beyond the traditional *drive-through* format to include practices that produce teacher learning and implementation. The lack of implementation and low level of usefulness to teachers must be addressed in professional development practices in order for change toward greater student achievement to occur. Teachers are not always convinced that opportunities offered are worth their effort. Professional development programs must motivate teachers to grow professionally (Barnett, 2000).

Darling-Hammond and Richardson (2009) suggested that useful professional development must include active teaching, assessment, observation, and reflection rather than theoretical discussions. Bubb and Earley (2009) described highly effective professional development as including discussion, coaching, mentoring, observing, and developing others. In consideration of ever increasing demands and accountability for student achievement, "Quality staff development is the vehicle for knowledge needed to support effective teaching" (Donhost & Hoover, 2007, p. 28).

Researchers are currently presenting models for professional development that include many of the missing elements of the traditional models which include but are not

limited to Professional Learning Communities, Communities of Practice, and Cognitive Coaching. Cognitive Coaching includes the elements covered in this review of literature identified as necessary and missing components of professional development resulting in career-long growth for increased student achievement. Cochran and DeChesere (1995) wrote:

> The current structure of education does little to allow or encourage teachers to risk change and seek new roles in reshaping current educational practices. Teachers typically are held accountable in a system in which they have little influence on educational policy. If the system remains frozen in this mindset, it is hard to imagine how education will make the necessary and pervasive changes to meet the needs of today and tomorrow's learners. Cognitive coaching is a viable means to defrost an educational system that has traditionally held teachers in check. (p. 24)

Cognitive Coaching is an opportunity to address concerns and problems of improving teacher competencies by tightening the gap between what they know and what they practice (Alseike, 1997).

Cognitive Coaching

Costa and Garmston (2002) called Cognitive Coaching "a simple model for conversation about planning, reflecting, or problem resolving" (p. 4). Townsend (1995) defined Cognitive Coaching as "a model or one set of comprehensive strategies to teach, develop, and enhance teacher decision making or reflective processes" (p. 169-170). Cochran and DeChesere (1995) described Cognitive Coaching as a "conscious and

systematic approach of helping a valued colleague in developing his or her own expertise" (p. 24). The model of Cognitive Coaching includes a set of practices that guide and deepen reflection to assist in professional growth. Day (1999) wrote "it is generally agreed that reflection in, on and about practice is essential to building, maintaining and further developing the capacities of teachers to think and act professionally over the span of their careers" (p. 222).

Similar to clinical observation models, Cognitive Coaching cycle includes a pre-observation meeting, an observation, and a post-observation conference between the coach and coachee. Unlike the clinical models, Cognitive Coaching is non-judgmental and assists coachees to discover their own successes, challenges, and solutions to their professional craft through a self-reflection process (Costa & Garmston, 2002; McLymont, 1998). The Cognitive Coach guides the reflection by pausing, summarizing, and probing for deeper reflection to assist the coachee in self-discovery of values, practices, actions, and needed modifications for constant professional growth. A key aspect of Cognitive Coaching is to develop the teacher as reflective practitioner (Uzat, 1998). Cognitive Coaching defines a structured process for a conversational framework intended to develop coachees to become self-directed and in control of their own professional development.

Purpose. The mission of Cognitive Coaching is: "to produce self-directed persons with the cognitive capacity for high performance, both independently and as members of a community" (Costa & Garmston, 2002, p. 16). Cognitive Coaching gives people the capacities for making decisions and becoming more self-directed (Uzat, 1998).

Through interactive practices encouraging reflection, coachees' thought processes are strengthened in their capacity for self-directed learning (Costa & Garmston, 2002).

Costa and Garmston (2002) refined self-directedness into self-managing, self-monitoring, and self-modifying. Self-managing persons draw from data, a strategic plan, clarity of desired outcome, and past experiences to create options for accomplishing a task. Self-monitoring persons use metacognitive strategies to realize available indicators of whether or not a plan is working and alter a plan when it is not. Self-modifying persons discover meanings of experiences by evaluating and analyzing through reflection and apply the learning to future challenges and undertakings (Costa & Garmston). Self-directed persons were further described as resourceful, engage in cause-and-effect thinking, able to persevere when confronting challenges, and able to predict future performance with a higher degree of accuracy. Teachers must be able to analyze the results of their teaching so that actions that prove to be effective can be retained while practices ineffective can be prevented in future occurrences (Costa & Garmston).

In addition to becoming self-directed persons, the second portion of the mission of Cognitive Coaching is to gain the ability to perform both independently and as members of a community (Costa & Garmston, 2002). Though teachers must act autonomously throughout their day, they also must realize and function as a part of a larger culture that exists within the school, at the district level, and at the community level. Costa and Garmston (2002) defined holonomous persons as follows: Holonomous persons have an awareness of themselves in this somewhat oxymoronic state of being an independent entity while also a part of and responsive to a larger system.

They also have the cognitive capacity to exercise responsible self-directedness in both arenas (p. 18).

Raines and Shadiow (1995) suggested that holonomous teachers think about how and why they teach and use what they discover to benefit the students. Costa and Garmston (2002) stated that the holonomous person continuously works to access and develop resources to insure constant growth. With a constant need for improved student achievement, the professional who strives for constant growth in themselves will also be the best purveyor for improving student achievement.

It is the responsibility of Cognitive Coaches to work toward their mission by assisting people to become self-directed both autonomously and as members of a group (Costa & Garmston, 2002).

Cognitive Coaching behaviors. Costa and Garmston (2002) used the term *mediator* to describe the role of the Cognitive Coach. With the ultimate task of creating self-directed learners, the mediator works from a middle position between a person and some event, problem, or challenge in a way that enhances the person's self-directed learning. By practicing a set of behaviors, the Cognitive Coach assists the coachee to establish clear goals, consider past successes, ponder alternate strategies, analyze data, find causal factors, and apply learning to possible future situations (Costa & Garmston, 2002).

Both verbal and nonverbal behaviors are practiced by a skilled Cognitive Coach to facilitate growth in others. Costa and Garmston (2002) described paralanguage, response behaviors, structuring, and meditative questioning as tools used by the

Cognitive Coach during conferences to facilitate reflection that increases self-directed learning. Costa and Garmston (2002) explained these behaviors as follows.

Paralanguage. Much meaning in communication is derived from nonverbal cues. Paralanguage refers to both verbal and nonverbal messages that are interpreted by participants of an interaction. Posture, use of space, and gestures add meaning nonverbally to a conversation while intonation, pacing, and volume in speech create meaning verbally. The Cognitive Coach uses an approachable voice to maintain a level of safety and inquiry and nonverbal behaviors such as positioning between coach and coachee, mirroring gestures, and eye contact.

Response behaviors. Verbal responses by the coach to the coachee's communications are response behaviors. Five types of verbal responses were discussed as important practices in coaching sessions.

First, silence specifies the needed wait time allowed by the coach to encourage further thoughts to be discovered and communicated by the coachee. Second, acknowledging recognizes what the speaker says without making value judgments. Third is paraphrasing, which serves three functions: it communicates to the coachee that there is value to what they are saying; it relays that there is a need for clarification on the part of the coach; and it allows the coach to shift the focus of a communication to a higher level for deepened reflection. Fourth, clarifying and probing are essential to prevent information from being distorted through the filters that are used by the brain. Finally, providing data and resources allows the coach to use the capacities of the coachee to process information by comparing, deducing, and identifying causal relationships.

Structuring. Structuring refers to the expectations of the purpose of the coaching sessions and resources to be used in the coaching process. A common understanding of the purpose is needed between the coach and coachee and must be mutually agreed upon. Included in this structure is the role the coach will play, time allotments, best location for meeting, and where the coach should be during the observation.

Mediative questioning. Mediative questioning must engage and transform the thinking of the coachee. These questions will be invitational, engage cognitive operations, and address content external or internal to the coachee. Invitational questions use an approachable voice and invite the coachee to identify goals, draw conclusions, indicate hunches, or name alternatives. Content referred to as external or internal includes what is happening in the environment surrounding individuals or what might be going on inside their minds or hearts.

Questions that engage cognitive operations invite different levels of complexity to thinking. These questions combine data gathering cognitive operations with the invitation to speculate, elaborate, and apply the concepts to new situations. An example of a mediative question might be: *After having success with this difficult parent communication, how might you sequence the needed steps to a teacher under your mentorship to provide a roadmap for future use?*

Cognitive Coaches know their purpose and use certain verbal and nonverbal techniques to guide others to be self-directed learners. By understanding and using paralanguage, proper response behaviors, setting structure, and using mediative questioning techniques, Cognitive Coaches act as a mediator between a person and an

event, problem, or challenge with the end focus of applying new learning to future situations.

Coaching cycle. The coaching cycle includes a planning conference, a goal-directed event, and a reflecting conference. Costa and Garmston (2002) explained these three parts of the coaching cycle as follows.

Planning conference. The planning conference takes place in advance of the goal-directed event. There are six reasons for the planning conference. First, this is a trust building opportunity, which is an essential piece to successful Cognitive Coaching. The foundation of trust is a primary goal of the coach and must be present in order for open, honest conversations to take place where individuals are willing to take risks and set goals in a safe environment. Second, this is the opportunity to focus the coach's attention on the goals of the teacher. At this meeting, the teacher shares plans and goals for a lesson so that the coach is accurate in knowing what to look for during the observation. Third, this meeting provides a mental rehearsal for the observation. Questions asked by the coach can promote and assist the teacher in refining strategies, discover potential problems with the plan, and anticipate possible decisions that will be made due to events as they unfold. Fourth, the planning conference will determine parameters of the reflective conference. The teacher sets the agenda determining what data they would like collected by the coach during the observation. This allows teachers accuracy in evaluating their performance with a focus on what their intentions were. Fifth, the planning conference promotes self-coaching. With the long-range goal of the teacher becoming self-directed in instructional thought, the planning conference provides

an opportunity to practice a way of thinking that puts the teachers in control of their own growth. This interaction provides practice for considering objectives, plans, and monitoring student success during the lesson. Finally, the planning conference accelerates sophisticated instructional thinking in teachers. As teachers become more skilled, they focus more on goals and success indicators than the event of teaching itself. The teacher is led to identify what students will be doing if they are successful with the learning goals and performing the objectives intended. The planning session allows the coach to get a clear picture of the role they are to play during the process, the data to be collected during the observation, and the preferred format for the data collection.

Monitoring the event. The goal-directed event during the Cognitive Coaching cycle is the observation. The data gathered during the observation, as well as the instrument for gathering the data, must be specified by the teacher during the planning conference. The coach may assist the teacher in designing the instrument but will not create it. Costa and Garmston (2002) stated "the intent is to cast the colleague in the role of experimenter and researcher, and the coach in the role of data collector" (p.48). Data gathering cannot include subjective judgments on the part of the coach. Exactly what is to be recorded and how must be determined together at the planning conference. When the teacher constructs the system for collecting the data, the data will be more meaningful to the teacher during the reflective conference. During the observation, the coach limits data collection to that which was specified by the teacher at the planning conference. Data collection strategies may include, recordings, video footage, movement maps, student participation, frequency counts, verbatim scripts, or other formats. Most

importantly, the data format and collection must be meaningful and pertinent to the teacher in order to assist in self-improvement efforts.

Reflecting conference. After the observation, it is suggested that a period of time be allowed to elapse before the reflecting conference takes place. This time allows the coach to organize the data and the teacher observed to reflect and process the events that took place. The coach may also create questions to encourage reflection at the appropriate level of the teacher observed. At the reflecting conference, the coach begins by asking the teacher to share impressions of the lesson and recall any specific events that took place. The coach may also invite the teacher to make comparison to the actual lesson and what was originally expected. When appropriate, the coach shares the data collected at the observation with the teacher and invites the teacher to make inferences for the data. During the conference, the coach continuously uses reflective questioning in order to assist the teacher's ability to identify causal relationships between the actions of the lesson and student outcomes. It is important that the coach guide the reflection so that the teacher is able to make inferences on teaching behaviors and the success of the lesson. The teacher will be encouraged to make projections about how future lessons might be altered due to discoveries and insights gained from this coaching cycle. At the end of this conference, the coach will request feedback on the coaching experience in order to consider future refinements that would make the Cognitive Coaching process more productive for the teacher.

The completion of the reflective conference completes the Cognitive Coaching cycle. As teachers move through the planning conference, a goal-directed event, and the

reflective conference, they experience and gain skills in becoming self-directed, holonomous teachers (Eger, 2006).

Research on Cognitive Coaching

The mission of Cognitive Coaching is: "to produce self-directed persons with the cognitive capacity for high performance, both independently and as members of a community" (Costa & Garmston, 2002 p. 16). Literature inclusive of professional journal articles to dissertations has been published to reveal a variety of findings from studies on the effects of Cognitive Coaching in school environments. This section reviews the literature on Cognitive Coaching as it relates to teacher professional development are areas of benefits resultant.

Historically, energy put into creating higher performing schools has come through external initiatives, monitoring, and evaluation but lacks respect for educational professionals and the effectiveness of collegiality (Uzat, 1998). Teachers need an avenue to move from a sink or swim mentality to being and acting as a part of a team to be successful. Self-questioning is within the capacity of practicing professionals, and administrators responsible for the professional growth of their educators need to facilitate self-improvement with a continuous, smooth approach (Uzat, 1998).

Six decades ago, Spears (1953) stated several attributes needed for improvement of supervision of instruction (cited by Uzat, 1998). Consistent with more recent literature, satisfaction of work, full participation, unity of supervisory effort, recognition of effort, observations that are welcomed by teachers, sharing rather than ordering, group contributions, and respect for democratic principles are needed for quality supervision

(Uzat, 1998). Cochran and DeChesere (1995) referred to Cognitive Coaching as "a process that unshackles individual inhibition and reluctance to take risks that are common characteristics of tradition-bound organizations" (p. 24).

Cognitive Coaching provides a structure that requires time for thinking about teaching (Townsend, 1995). Cochran and DeChesere (1995) described Cognitive Coaching as a "personal and powerful method of encouraging teacher innovation" (p. 24). After receiving Cognitive Coaching for one year, a group of first grade teachers noted their ability to think more clearly, accept higher accountability, work through difficult issues, accept challenges, and focus their instructional practices (Slinger, 2004).

This review of literature on Cognitive Coaching represents areas found to be of benefit to teachers in their professional development as well as some of the challenges that may be present. Gains in reflective practice, creating a trusting environment for risk-taking, strengthening efficacy, collaborative conditions, and implementing new programs are discussed and shown to be products of Cognitive Coaching practices.

Reflective practice. There is no debate over whether or not reflective practice is beneficial to educators' professional growth. Uzat (1998) wrote: "Reflection in Cognitive Coaching is for the express purpose of improving" (p. 24). When teachers are able to reflect, they examine beliefs, goals, and practices to achieve a deeper understanding, which ultimately leads to improved learning (Grouse, 2003).

Reflective practice needs to be a professional ritual built in to educators' routine as a means to constant improvement. Professional dialogue and reflective practice are necessary pieces of effective professional growth that assist teachers in developing their

capacities over the span of their careers (Day, 1999; Eger, 2006). Danielson and McGreal (2000) stressed that reflection needs to be an ongoing practice and leads to higher student achievement by providing different perspectives and interpretations. Smith (1997) offered: "Teachers who self-reflect are confronted with the effects of their teaching. They must consciously assimilate or accommodate the new knowledge by examining current practices and determining the importance of this new understanding in achieving desired outcomes" (p. 73).

The research on Cognitive Coaching overwhelmingly shows growth in professional educators' use of and raised ability in reflective practice. "Cognitive coaching empowers teachers by heightening awareness levels through self-reflection" (Smith, 1997, p. 73).

In a study by Slinger (2004), first grade teachers received sessions of Cognitive Coaching specific to reading instruction. Over a one-year period including nine Cognitive Coaching sessions, the teachers voiced an increase in clarity of their thinking and the addition of depth and breadth to their thoughts (Slinger, 2004). These teachers stressed their new awareness of the unknown, increased consciousness in the classroom, growth in flexibility, strength in intentionality, and the importance of taking time to reflect due to receiving Cognitive Coaching (Slinger, 2004). Similarly, Eger (2006) declared growth in ability to self-evaluate actions during teaching and planning to be the greatest area of improvement resulting from Cognitive Coaching of secondary teachers. Teachers attained a higher level of analysis, thought more deeply about their planning,

evaluation, and self-monitoring, and reflected more clearly about their actions after a lesson.

The purpose of Cognitive Coaching is to create self-directed learners (Costa & Garmston, 2002). Eger (2006) wrote: "Self-directed learners are mindful of what is to happen, what is happening, and altering ways to improve student achievement" (p. 49). Multiple studies showed that the push for deeper reflection during Cognitive Coaching gave participants more precision to their thinking and reflecting skills resulting in refinements of their instructional strategies (Alseike, 1997; Schlosser, 1998; Townsend, 1995). Kane, Sandtretto, and Heath (2004) shared the following from a study on reflective practice with university science teachers:

> We found evidence of different types of reflective practice used by the participants. We propose that purposeful reflection on their teaching plays a key role in assisting our participants to integrate the dimensions of subject knowledge, skill, interpersonal relations, research/teaching nexus and personality into recognized teaching excellence. (p. 284)

Gordon and Brobeck (2010) offered multiple benefits of reflection for a group of mentors using a coaching model for growth. In this study, the mentors found that reflecting on mentoring practices observed was valuable; the reflective dialogue shared with another person became more powerful than isolated reflection; and discussions helped the mentor to find cognitive dissonance and eventually resolution (Gordon & Brobeck, 2010).

Researchers have defined depth of reflection in different ways (Hatton & Smith, 1995). Hatton and Smith (1995) proposed four types of reflection. Technical reflection

was identified as when the reflector is able to make decisions about immediate behaviors or skills. Descriptive reflection was described as when the reflector is able to analyze their own performance as a professional. Dialogic reflection was defined as when the reflector is able to explore alternative ways to solve professional problems while hearing their own voice. Finally, critical reflection was recognized as when the reflector takes into account social, political, or cultural forces while thinking about how actions taken affect others. Kane, Sandtretto, and Heath (2004) used the four types of reflection identified by Hatton and Smith (1995) to describe the results of Cognitive Coaching with university science teachers. Technical reflection was observed in sixteen out of seventeen participants. Descriptive reflection was observed in sixteen out of seventeen participants. Thirteen out of seventeen reflected at the dialogic level. And three out of the seventeen participants reflected at the critical level. Thirteen of the participants also reflected at multiple levels. The most common reflection observed by participants was on the skills of the teacher and subject matter being taught. Without the exception of a single participant, Kane, Sandtretto, and Heath (2004) affirmed that some level of reflection was achieved through Cognitive Coaching.

McClean and Blackwell (1997) stressed the importance of reflection with: "teaching excellence resides in a reflective, self critical, theoretically informed approach" (p. 85). Reflection provides the opportunity to make meaning out of what educators experience (McLymont, 1998), and Cognitive Coaching provides the avenue and opportunity for building and internalizing reflective practice.

Trusting environment. The importance of a safe setting for exploring complex problems is significant (Geltner, 1993). In order for recipients of Cognitive Coaching to be honest and open about progress and further work needed, a safe, trusting environment must be established and maintained. "In such a private setting of focused attention and concern, respect and trust, both teacher and learner can reach new levels of understanding and growth" (Geltner, 1993, p 14).

Supervision needs to include the element of collegiality in relationships so a non-threatening environment can exist to encourage risk taking (Uzat, 1998). McLymont (1998) explained that the more comfortable atmosphere created through Cognitive Coaching practices eliminated any element of intimidation and allowed for greater freedom of expression. An important part of Cognitive Coaching is to encourage and build trusting relationships between the coach and coachee (Cochran & DeChesere, 1995; Costa & Garmston, 2002; McLymont, 1998; Schlosser, 1998). With these relationships in existence, a desire for self-knowledge surfaces, which results in improved teacher performance (Cochran & DeChesere, 1995).

Several findings in research measuring the effects of Cognitive Coaching reveal the establishment of trusting environments and the benefits thereof. McLymont (1998) wrote: "Reflective Coaching Discourses provided the avenue for openness and freedom of expression which led to a willingness to share, and generate a feeling of acceptance and improved self confidence" (p. 28). This environment brought a more openness to sharing due to its non-judgmental context, allowed for flexibility, and assisted participants to be more open to alternatives. One participant of Cognitive Coaching

stated: “In order to effectively teach and learn, trust is the most important factor. If we feel threatened, we tend not to trust” (Schlosser, 1998, p. 86). Townsend (1995) found that the non-judgmental environment established through Cognitive Coaching created the trust needed for improvement.

Feeling supported was a strong theme shared by the teachers (Slinger, 2004). Teachers said they found value in having someone listen to their concerns and acknowledge challenges while maintaining a “calming and encouraging” coaching session (p. 150). “Cognitive Coaching provides a safe format for professional dialogue and develops the skills for reflection on practice, both of which are necessary for productive collaboration” (Costa & Garmston, 2002, p. 25).

Efficacy. Efficacy is a powerful quality for teachers with today’s challenges. Benefits for students associated with higher levels of efficacy in teachers have been found in numerous studies, and a strong sense of efficacy is important for making changes to meet the demands of today’s educational challenges (Costa & Garmston, 2002; Smith, 1998). Ross (1995) asserted that teachers with high levels of efficacy shared important qualities. These teachers typically set higher goals for themselves and their students, they were more persistent when facing challenges, and exhibited a high sense of responsibility for their students’ success (Ross, 1995).

Edwards and Newton (1995) found that those trained in Cognitive Coaching scored higher on both efficacy and empowerment scores. Edwards, Green, Lyons, Rogers, and Swords (1998) considered Cognitive Coaching a promising avenue to increasing teacher professionalism and efficacy and as support for implementing

innovation. Further, significant differences were discovered in efficacy gains as teachers experienced greater amounts coaching cycles. So, the more Cognitive Coaching one receives, the greater their growth in efficacy (Swords, 1998).

Smith (1998) identified two types of efficacy. The teachers of the control group using Cognitive Coaching increased efficacy in both efficacy areas of reinforcing successes and in making purposeful change. Not only is efficacy critical to student success (Chugani, Elliot, & Isaacs, 2010), efficacy also plays an important role in teacher turnover and is believed to be an important piece to lessening turnover and improving educational effectiveness (Blackboard, 2008).

"Efficacy is a prerequisite for improved student learning" (Costa & Garmston, 2002, p. 128). As teachers gain certainty in their technical knowledge, so can that efficacy positively affect student learning. Costa and Garmston (2002) described efficacious people as resourceful, energetic in challenging tasks, set challenging goals, and show great perseverance when encountering barriers. In the literature reviewed, a greater level of efficacy is established through Cognitive Coaching (Edwards & Newton, 1995; Edwards et al, 1998; Swords, 1998; Smith, 1998).

Job satisfaction. A low level of teacher satisfaction leads to teacher exodus (Perrachione, Peterson, & Rosser, 2010). Latham (1998) added that not only can job satisfaction assist with teacher retention; it can also improve the quality of their teaching. Alternative teacher evaluation practices and strength in efficacy have been linked to effects of Cognitive Coaching and are also indicated by Perrachione et al. (2010) to have strong influence on teacher job satisfaction. High levels of job satisfaction can also shape

school culture and influence teachers' sense of empowerment (Zemylas & Papanastasiou, 2005).

Edwards and Newton (1995) revealed that teachers trained in Cognitive Coaching had more positive feelings about their work and were significantly more satisfied with their careers as teachers. In another study comparing several factors between a treatment group (those trained in Cognitive Coaching and coaching each other) and a control group (those not trained in Cognitive Coaching), it was again discovered that there was a significant difference in career satisfaction of the treatment group over the control group (Edwards, et al., 1998). These teachers showed greater satisfaction in both their current position and teaching as a career. Job satisfaction is an important slice of success in the careers of educators (Latham, 1998; Perrachione et al., 2010), and Cognitive Coaching serves as link to increase the level of job satisfaction in many teachers (Edwards & Newton, 1995; Edwards et al., 1998).

Increase with experience. A consistent theme in the literature is that the effects of Cognitive Coaching become stronger with more Cognitive Coaching experiences (Alseike, 1997; Edwards & Newton, 1995; Edwards et al., 1998; Foster, 1989; Holloway, 2003). Findings reveal both more Cognitive Coaching sessions within a time period and sessions covering a longer period of time to bring greater benefits to the teachers involved.

The immediacy of results was less for those newer to the practices and experiences with Cognitive Coaching (Edwards & Newton, 1995). Foster (1989) declared that teachers who received seven or more Cognitive Sessions perceived

Cognitive Coaching as having a higher impact on their thought processes. Alseike (1997) found that the more interaction teachers had with their coach, the more Cognitive Coaching impacted professional practice.

In a study using the Vincenz Empowerment Scale and the Teacher Efficacy Scale, results indicated that the more practice and exposure teachers had in Cognitive Coaching, the greater their scores in both efficacy and empowerment (Edwards & Newton, 1995). In a later study, efficacy, teacher professionalism, and practices of collaboration all increased with the frequency and number of coaching cycles (Edwards et al., 1998).

An additional segment of the concept of experience is that of the years of teaching experience of the coachee. In comparison studies involving new and experienced teachers, teachers beyond their initial years benefitted more than did their probationary counterparts (Eger, 2006; Foster, 1989).

Holloway (2003) stated that in order to sustain high-quality teachers, we must provide support for teachers throughout their careers. Teachers can continue to grow professionally, and even to greater extents, as they use Cognitive Coaching over an extended portion of their career.

Collaboration. Danielson and McGreal (2000) wrote: "a system that builds in collaboration, particularity if that collaboration demands reflection on practice, is more likely to yield genuine effort than one that does not" (p. 24). Professional dialogue, collaboration, and reflective practice are necessary pieces to effective professional growth (Eger, 2006).

Literature reviewed broadly shared the importance and benefits of collaborative

practices. McLymont (1998) put forth that working together collaboratively increases participation and furthers flexibility and creativity. Cochran and DeChesere (1995) stated: "All members of the school district organization must be included in decisions that directly affect their working environment. Schools must allow teachers to creatively influence the direction and content of policy in their local districts" (p 24).

Mackie (1998) compared traditional observation practices of teacher evaluation to using a collegial model with elements of Cognitive Coaching as the framework. Teachers in this study found that as they observed others, they also analyzed their own teaching methods, which gave them further reflective insight to their own professional practices. In this case, Cognitive Coaching by peers increased collegiality, the sharing of ideas, and added insight to improving instruction. Teachers of this study voiced a great preference for their experience with this style of evaluation over their experiences with traditional approaches (Mackie, 1998).

Eger (2006) spoke of the growth of high school teachers in areas of collaboration gained through Cognitive Coaching. Cognitive Coaching was shared as having a positive impact on relationship building, bringing increased communication, and the teachers expressed an appreciation for a professional dialogue outlet. Through Cognitive Coaching, teachers were able to take their teaching in a different direction, and the power of collaboration lessened the likeliness of becoming stagnant (Eger, 2006).

Townsend (1995) found that being a coach and learning the strategies encouraged collegial relationships with others to enhance coaching expertise. Collaboration went up significantly as teachers implemented standards based education with Cognitive

Coaching as a part of their practice (Edwards et al., 1998). Cognitive Coaching changed the norms that created isolation and deprived teachers the benefits of learning from coworkers (Awakuni, 1996). Cognitive Coaching facilitated sharing of ideas and strategies, collegiality, reflection, and personal and professional growth for teachers. Cooperative activities facilitated through Cognitive Coaching included joint planning, joint control of facilities and time, team planning time, and a shared interest on academics.

The importance and emphasis put on collaboration in the literature cannot be overlooked. Garmston and Linder (1993) pointed out that school reform must include collaborative cultures. Building collaborative practices into professional development is critical, and school systems should consider alternatives to hierarchical models such as clinical supervision (Garmston & Linder, 1993). According to Danielson (2001), school systems need to promote professional dialogue as a part of their professional development. Professional dialogue is important and results in improved student learning.

Implementation of new programs. Costa and Garmston (2002) suggested: "few educational innovations achieve their full impact without a coaching component" (p. 24). Joyce and Showers (2002) claimed that only ten percent of workshop attendees change anything about their teaching from the workshops. Additionally, after three months, only one percent of teachers are still trying the new innovations and strategies attained through a traditional workshop model. Cognitive Coaching as a support for implementing new programs can be a valuable asset to ensure application (Uzat, 1998).

Batt (2010) wrote about how Cognitive Coaching was used as a follow up practice to the traditional workshop training. In this study, teachers of English Language Learner (ELL) students attended a traditional format workshop in order to be introduced to and trained in the practices of an educational model called Sheltered Instruction Observation Protocol (SIOP). Once teachers completed the workshop, it was found that 53 percent of the teachers attending the workshop implemented the instructional methods of SIOP. After Cognitive Coaching was added to guide and coach teachers in the methods learned at the workshop, Batt (2010) found that implementation of the SIOP instructional methods increased significantly reaching 100 percent of the participants. The teachers in this study expressed that it was well worth their time to participate in the coaching process and that the Cognitive Coaching phase added substantial value to the traditional training.

Joyce and Showers (1996) revealed that ninety percent of teachers will use a new skill when ongoing coaching is included with demonstration, feedback and practice as a part of the professional development program. Innovations and new strategies will pave the way for improved student learning, and Cognitive Coaching is needed to ensure full implementation (Uzat, 1998).

Miscellaneous findings. In addition to the aforementioned findings in the literature, Cognitive Coaching has shown other benefits and effects noteworthy for the purpose of this study. Edwards and Newton (1995) wrote that those trained in Cognitive Coaching tended to use higher level questioning in their everyday classroom practices. Townsend (1995) found that the use of Cognitive Coaching validated values and

philosophy of participants. Those practicing Cognitive Coaching found themselves to be better, more active listeners as a result of their practices (Eger, 2006; Schlosser, 1998). Alseike (1997) stated that those using Cognitive Coaching improved in the phases of planning, teaching, analysis, and applying.

Cautionary Findings. In addition to the benefits shared in the literature on Cognitive Coaching practices, several challenges surfaced that are included in this review. The limitations and demands for time, the existence of non-reflective personalities, individual confidence level in the program, where teachers are in their careers, and the commitment of longevity needed for positive results proved to be concerns apparent in the literature.

Cognitive Coaching requires a great deal of time, a commodity that is limited for most educators (Awakani, 1996; Schlosser, 1998; Townsend, 1995). Awakani (1996) stressed that in order for Cognitive Coaching to be effective; schools must take the time needed, which is substantial. The major dissatisfaction of Cognitive Coaching was in the time needed for scheduling and training, and unless funding was available to support a program, teachers would likely not use it voluntarily (Awakani, 1996). Townsend (1995) and Schlosser (1998) agree that teachers have busy schedules, and the time needed for effective Cognitive Coaching is substantial. Awakani (1996) shared that meetings must be scheduled regularly in order for Cognitive Coaching to be affective.

It is important to recognize that people learn and grow professionally in different ways. Townsend (1995) observed that Cognitive Coaching was far more beneficial to those who had naturally reflective personalities. Non-reflective personalities found less

benefit to the Cognitive Coaching model. Those who tended to be more reflective before participating in Cognitive Coaching enhanced their reflectivity to a greater level than those who did not (Townsend, 1995).

Teachers beyond their initial years benefitted more than did their probationary counterparts (Eger, 2006; Foster, 1989). New teachers tended to need more assistance with learning policies, procedures, improving classroom management, and gathering resources to use in the classroom (Eger, 2006). Foster (1989) found that teachers with fewer than five years experience perceived Cognitive Coaching as having a low impact on planning and teaching.

The longevity and density of a Cognitive Coaching program affects the benefits for teachers. It can take years for Cognitive Coaching to become effective for teacher professional growth (Cochran & DeChesere, 1995; Edwards et al., 1998; Foster, 1989). The effects of Cognitive Coaching are not immediate but manifest over time (Edwards & Newton, 1995). Additionally, the number of Cognitive Coaching sessions impacts the results. Foster (1989) found that teachers with seven or more Cognitive Coaching sessions perceived their experience as having a higher impact on their thought processes than those with less than seven sessions.

Both the coach and coachee must have confidence in the program and processes of Cognitive Coaching to go from theory to practice (Townsend, 1995). Those going through the routine without the confidence in Cognitive Coaching will not make the growth expected. Colleagues must also be compatible with one another and share similar values (Awakani, 1996).

Factors including limited time, teacher confidence in the model, personality and learning style, longevity of program, and years of teaching experience can affect the benefit level of Cognitive Coaching. No staff development opportunity comes without some barriers to success.

Summary

The need for constant, effective professional development is not at question. Demands for increased student achievement support the need to have career long professional development models with teachers as the learners in order to meet the constant changing needs of our students. Traditional *drive-through* models of professional development are not providing the necessary growth and must be replaced with models and practices that ensure quality teacher change for the purpose of increased student achievement. School districts have been tolerant of professional development activities that are ineffective and have been satisfied with measures of staff attendance and staff satisfaction as a means of measuring success.

The research reviewed indicates several areas of concern that must be addressed in order for staff development models to be effective. Professional development should happen in real working environments where actions are tried and assessed. Traditional forms often take place as workshops or lectures in isolated environments away from the actual schools and classrooms. Such models have shown that very little of the content presented is actually transferred into the classroom and professional practices. Research also indicated that of those practices actually transferred to the classroom, the longevity

of application is very limited. Professional development must include the element of ongoing support to be effective and pave the way for longevity and application.

Traditional staff development models also present content created externally to the teacher as learner. Just as personalized learning models are implemented for the students taught, so should a personalized learning model be used with teachers in their professional growth. Personalized learning allows for specific contexts and curriculums to be addressed as well as professional interests and areas of need. Personalized content and focus will create a higher level of usefulness to the teacher and consequently more widespread implementation of new and altered practices.

One such practice in professional development is the use of Cognitive Coaching. As a framework for planning, reflecting, and problem solving, Cognitive Coaching assists teachers to become self-directed learners. A Cognitive Coaching cycle includes a pre conference, an observation, and a post observation meeting. It is nonjudgmental and assists coachees to discover their own successes, challenges, and solutions within the context of their professional craft.

Cognitive Coaching seeks to develop professionals both as self-directed and holonomous persons. Coaches use a set of behaviors to guide the professional development of the coachee. Paralanguage, response behaviors, structuring, and mediative questioning all assist to guide the coachee into deepened reflection that results in self-managing, self-monitoring, and self-modifying abilities and behaviors.

Research on the effects of Cognitive Coaching has shown teachers' professional behaviors to grow in multiple areas. Studies reviewed have shown an increase in

reflective practice, extended collaboration with peers, more trusting environments, greater efficacy, higher job satisfaction, and better levels of implementation of new programs. Literature reviewed also indicated areas of concern including the high demand of time, personality compatibility with reflecting to others, years of professional experience, confidence in the program, and longevity of Cognitive Coaching practices.

Cognitive Coaching has been an effective model for professional development for multiple researchers. Effects measured have been substantially positive and show promise for use in guiding professional growth. In the case of Eger (2006), "Cognitive coaching has created a culture for continuous improvement in teachers' professional growth and continuous improvement in the buildings as a whole in the sites studied" (p. 97).

Chapter III

Design of the Study

Introduction

The purpose of this study was to identify teachers' perspectives of the effects of Cognitive Coaching (see Chapter 2, Research on Cognitive Coaching) on professional practices in a single school district after a four-year period of time. The problem in existence was that, after a period of four years of Cognitive Coaching with teachers, precise results of this practice were unknown. The question, *What are teachers' perspectives of how professional practices are affected by Cognitive Coaching?* was answered through this case study of the practices of teachers in a single school district. The study considered professional practices ranging from teachers' use of self-reflection to classroom behaviors in the delivery of instruction to students. Specific areas of professional practices that were identified are included in the results.

The design of this study was a case study using a qualitative methodology. The data collection was two-phased and sequential using focus group interviews followed by surveys measuring teachers' perceptions of professional practices that have been affected as a result of being the recipients of Cognitive Coaching. Teachers of the school district studied have received Cognitive Coaching as a part of their professional development from 2008 until 2012. This research was conducted in a single Midwestern suburban school district.

Merriam (1998) described a case study as research using a selected unit of analysis with a purpose of better understanding what is taking place. This description

indicates that a case study would be the correct methodology for this study since the unit of analysis is clearly identified, and the purpose was to gain insight of what teachers' perceptions were pertaining to changes in professional practices due to being the recipients of Cognitive Coaching. In further support of a case study methodology, this study investigated a "contemporary phenomenon in depth and within its real-life context…" (Yin, 2009, p.18) in order to identify teachers' perceptions of how Cognitive Coaching affected professional practices. Though multiple schools were included in the study, the results were combined to represent results identified by a single school district inclusive of elementary, middle, and high schools.

Yin (2009) named four motives for choosing case study methodology: explanation, description, illustrative, and enlightenment. The aim of this study was in alignment with the motivations described by Yin since the current status of teacher perceptions was unknown, and the purpose was to discover and explain exactly what perceptions existed. This alignment provides further evidence that case study methodology was the choice for this research.

This research methodology was also partially related to the model of grounded theory research in that it did not attempt to test or prove a theory or hypothesis but rather create hypotheses and build theory based on the data collected and the coding process (Strauss & Corbin, 1998). This study included data collection in stages along with constant comparison of the data and refinement of the categories as new data was added (Strauss & Corbin, 1998).

Research Site

The selected site for this case study was a suburban school district, which is located in the south central region of Minnesota. This school district includes six elementary schools, two middle schools, and one high school. The school district serves approximately 8000 students and employs roughly 600 staff members on the teacher contract.

Alternative Teacher Professional Pay System. The Alternative Teacher Professional Pay System has been a practice of the school district since the 2008-2009 school year and remains a practice this 2012-2013 school year. The Alternative Teacher Professional Pay System adopted by the school district requires that all teachers be observed a minimum of three times per year where the observer practices the principles of Cognitive Coaching. Two additional requirements of the Alternative Teacher Professional Pay System include a Student Learning Goal authored by individual teachers and a Site Goal shared by all affiliated staff members of that site. The observational process with Cognitive Coaching accounts for 80% of the monetary compensation where success is determined by teachers showing competence in a series of descriptors by the observer. Observers of teachers are required to use Cognitive Coaching as the conversational framework when meeting teachers about their observation. This study focused on the effects of the Cognitive Coaching portion of the Alternative Teacher Professional Pay System with respect to how teachers perceive its effects on their professional practices.

Teachers on Special Assignment. A Teacher On Special Assignment (TOSA) performed the requirement of the Alternative Teacher Professional Pay System where teachers were observed a minimum of three times per year. A TOSA is a staff person on a teaching contract who has been released from all teaching duties in order to carry out other functionalities within the district. TOSAs remain on the district teaching contract and are commonly placed in these positions for a specified term. TOSAs fill a variety of roles including but not limited to technology specialists, subject specific specialists, teacher mentors, and those selected to specifically conduct teacher observations under the guidelines of the Alternative Teacher Professional Pay System. The TOSAs in the positions of Instructional Coaches were fully dedicated to performing teacher observations through the model of Cognitive Coaching. Each of the TOSAs performing the observations with tenured staff was trained in Cognitive Coaching and participated in ongoing staff development to maintain and heighten their Cognitive Coaching awareness and skills. Only tenured teachers were participants in this study to maintain consistency in the observations being performed by those trained and practicing Cognitive Coaching.

Participants

Previous to data collection, the school district of the study provided a document identifying all employees participating in the Alternative Teacher Professional Pay System since its start in 2008. The document was used to identify all employees meeting the requirements of the sample group. Originally containing 771 persons, the list was refined to 233 teachers who were tenured prior to the start of the 2008-2009 school year

and were recipients of Cognitive Coaching as a part of their professional development for four years.

Participants chosen for this study were selected based on their employment with this school district and their involvement in the Cognitive Coaching process through the Alternative Teacher Professional Pay System. Focus group participants were constructed of six tenured classroom teachers in each of three groups. The three groups included an elementary site, a middle school site, and a high school site. The purposive sampling method was used and was most appropriate since it was a requirement to have experienced the Cognitive Coaching process over time within this particular school district. Participants in the study were established as tenured status previous to the 2008-2009 school year. Tenured teachers were considered those employees on the teaching contract who were not probationary and not going through their original probationary evaluation cycle. Non-tenured teachers were not included in this study since they participated in the Alternative Teacher Professional Pay System process with the building principal as their observer, and building principals were not required to have formal training or certification in Cognitive Coaching. Only teachers coached by those trained in Cognitive Coaching were included in order to heighten validity in the process being considered for affecting professional practices.

All participants of the study were on a volunteer basis. Invitations to participate in focus group interviews and surveys were extended to classroom teachers meeting the criteria of having achieved tenure previous to the 2008-2009 school year, participated in the Alternative Teacher Professional Pay System with a trained Cognitive Coach for four

years, and were currently employed under a teaching contract with the school district to be studied.

Data Collection

Charmaz (2010) suggested at least two data gathering approaches be used in a study of significant size such as a thesis. This study used three instruments in data collection including focus group interviews, surveys, and archival evidence.

Focus group interviews. Focus group interviews were conducted at three school sites within the school district in order to gather teachers' perspectives inclusive of elementary, middle, and high school level teachers. No other schools in the district were added since theoretical saturation was achieved where no new data was being obtained from the research participants. Creswell (2009) named three advantages of data collection through focus group interviewing. First, it is useful when participants cannot be observed directly. In this case, the observation of a large group of teachers over a four-year period of time was not practical. Additionally, the research question is a measure of teachers' perceptions, not observable actions.

Second, Creswell (2009) recognized that participants of interviews are able to provide historical information. As a measure of data, this research aimed to identify what teachers perceived as changes they made over a time period of four years. The intention of the researcher was that participants would reflect on professional practices previous to being recipients of Cognitive Coaching as well as changes they considered themselves to have made as a result of the Cognitive Coaching over time.

Third, Creswell (2009) wrote that data collection through interviews allows a researcher to have control over the questioning content. The literature review of this study indicated expectations of general themes to be gained through Cognitive Coaching. Specific interview questions for the focus groups of this research were constructed to gain perspectives from the teachers of this case study rather than reflecting what has been previously found in other studies on the effects of Cognitive Coaching. The researcher's control over the content of the questions was required in order to identify teachers' perceptions of the effects of Cognitive Coaching as was present in this school district without consideration for what had been discovered previously (see Chapter 2, Research on Cognitive Coaching).

All focus group interviews were semi-structured and were based on the questions offered in Appendix A (see Appendix A). Some flexibility was present in areas that needed prompting for deeper thinking, ordering of questions, and rewording of questions due to content of previous answers that addressed the present question in order to assist focus group interview participants to clearly distinguish the perceptions that they were attempting to identify. All questions were open-ended and encouraged reflection and explanation of any change in professional practices that resulted from Cognitive Coaching. The intent of the interview questions was to understand how teachers perceived any changes in their professional practices that resulted from receiving Cognitive Coaching. As specified by Creswell (2009), interview questions were few in number and open ended in order for participants to offer opinions and views accurately.

Focus groups consisted of six participants at each site and were approximately one hour in length. Focus group interviews took place in private conference areas at each school site. Invitations to participate were sent by email to all teachers at each site that met the criteria of the sample group. The group sample size for invitation to participate in the three focus groups were 20 at the elementary, 44 at the middle school, and 45 at the high school. The email included the reply with yes or no function to participate. Since the volunteer numbers of six participants per school were of appropriate size, all volunteers were accepted to participate.

Focus group interviews were conducted after teacher contract hours at each of the three sites and recorded on a digital voice recorder. Focus group interview participants were informed of the intent of the research and how the research findings would be used to add information to the academian collection addressing effects of Cognitive Coaching and were required to sign a consent form in order to participate (see Appendix B).

Surveys. Once all data gathered from the focus group interviews was collected and coded to identify consistencies, the survey was created (see Appendix C). The purpose of the survey was to gather validating or negating data on each of the major themes that surfaced through the focus group interviews. Surveys were conducted using the Google Apps survey instrument. The survey was created with a Likert-scale response consistent throughout. The survey consisted of nineteen questions and took approximately three to five minutes to complete for the average participant. The survey asked of the greater sample population questions directly related to the themes identified through the coding of the focus group interviews. Survey data was collected from all

school sites within the school district and was based on the content that surfaced through the focus group interviews. The contents of the surveys was not known at the beginning of data collection due to its dependency on results of the focus group interviews and the findings through the coding process. Specific survey questions were not constructed until focus group interviews achieved theoretical saturation where no new data was being obtained from the research participants. Survey questions directly reflected findings through coding of previously collected data in order to strengthen credibility and verify the assumptions reached through the grounded theory coding of the interview data.

Institutional Review Board (IRB) approval was obtained for survey use once the survey was constructed. Participation in the survey was voluntary. Invitations to participate in the survey included classroom teachers within the district who were tenured previous to the 2008-2009 school year. Survey participants also participated in the Alternative Teacher Professional Pay System for four years, which included a minimum of three observations per year inclusive of Cognitive Coaching. With district administrative approval, invitations to participate in the survey were sent by email to the school accounts of all members of the sample group of 233 teachers. The survey introduction explained the intent of the survey as well as how the collected data would be used. Consent to participate in the research (see Appendix D) was explained and presented at the beginning of the survey. Survey response participation was 81 out of the 233 invitees (34.8 %). Survey results were organized and graphed for clarity in the presentation of the data.

Archival evidence. Previous survey results collected by the district each year evaluating limited aspects of the Alternative Teacher Professional Pay System were collected and reviewed. Survey data was collected and exists for the school years 2008-2009, 2009-2010, 2010-2011, and 2011-2012. The focus of these surveys was mainly a measure of teacher satisfaction of the Alternative Teacher Professional Pay System. The variety of questions used reflected the interests of the previous Alternative Teacher Professional Pay System program coordinator but did include some information directly addressing the research question. The questions that related to the research objective of discovering teachers' perspectives of how professional practices are affected by Cognitive Coaching are shared in the results portion of this study.

Data Analysis and Organization

To explore the possibilities of teacher's perceptions of professional practices that changed as a result of Cognitive Coaching, data collected through focus group interviews was coded and organized in order to find consistencies in each data collection.

Data analysis began with the transcribing of all data collected from the focus group interviews. Recordings of each focus group were sent to a professional transcriptionist where the interviews were transcribed and returned in a word processing format totaling approximately 60 pages of single spaced text. To ensure accuracy, all interview audio was reviewed line by line while compared to the text and adjusted for minor inaccuracies mainly due to educational terminology not common to general audiences. Once accurate, further review and adjustments were made for clarity of written communication lessening repetitions of terms such as "like," "umm," and "ah,"

repeated questions, and pleonastic verbiage. Participants referred to in the transcriptions were de-identified by replacing names with fictitious names.

Transcribed data was coded into themes and categories. The purpose of identifying themes and categories was to find relationships between focus group sites that were consistent. Coding of the interview transcriptions was done by grounded theory analysis. The researcher began by coding a single focus group interview. Each significant theme identified through the coding process was categorized in Dedoose; an Internet based coding software program chosen by the researcher. The constant comparison method of qualitative analysis was used when coding the data as described by Glaser and Strauss (1999). The four stages of the constant comparison model identified by Glaser and Strauss (1999) include: comparing incidents applicable to each category; integrating categories and their properties; delimiting the theory; and writing the theory. In the first stage, data was coded into as many categories as possible. In stage two the focus moved to emergent properties of the categories. As more incidents were compared, stage three included removing irrelevant properties of categories and bringing properties into interrelated categories. As categories were reduced, higher-level concepts emerged. Finally, in the writing theory stage, the researcher presented identified categories and hypotheses.

The initial open coding method of the transcriptions was applied to each significant sentence or statement. Initial categories identified in the coding software were representative of themes or commonalities presented through statements made during the first focus group interview. Once a single interview was completed, the second and

subsequent focus group interviews were coded through the same open coding method. However, as themes were added to the existing categories created through the coding of the first interview, new themes emerged at which time the researcher added new categories to reflect the themes brought out through subsequent interviews. Axial coding was used to find relationships between the set of data collected from each of the focus group interviews. Represented in categories, the relational data identified consistencies between and within the themes of each of the focus group interviews. These themes were used as the basis to design the Likert-scale survey for the second phase of the study.

Quantitative procedures were used to analyze the Likert-scale survey. Because Likert-scales measure only ordinal data, nonparametric measures were used. Descriptive statistics are presented in the text of the findings and in a series of figures (see List of Figures) in order to identify the frequency distribution of responses for each question. The Google Apps survey tool used included measures of frequency distribution.

Questions used and data collected in the survey was compared to earlier surveys collected by the district as a measurement of satisfaction of the Alternative Teacher Professional Pay System. Associated themes or content were compared with the survey given by the researcher in order to identify any change that has taken place as apparent through the survey over the past years data has been collected. Similarities and differences are presented in the findings section of this study.

Results of the findings were described when all data organization and analysis was completed. Themes and practices showing consistency were identified and

discussed. Implications of meaning were represented as the perception of the researcher along with further opportunities for study.

Credibility and Trustworthiness

In order to achieve credibility of the findings of this study, several steps to establish trustworthiness were used. First, focus group interviews were done at three sites with no participants being the same from one to another. Additional sites did not need to be added since theoretical saturation was achieved where no new data was presented through the first three focus group interviews. This saturation point allowed all the data available on the research question from this particular school district to be gathered. Member checking was used during the interviews in the form of providing summarizing statements and checking for clarification by the participants.

Second, axial coding was used in the analyzing and coding process. By finding and identifying relationships and themes that were similar coming from multiple focus groups, the data and themes recognized gained greater validity. Data source triangulation occurred at the final stage of coding and data organization. The categories of the coding software reflect shared themes as well as themes uncommon to different focus group interviews.

Third, surveys were created based on the identified themes of the coding process from the focus group interviews and sent to staff within the sample group to support or negate the data collected in the focus group interviews. This further triangulation through the survey results strengthened the validity of the findings identified through the data coded from the focus group interviews.

Fourth, a comparison of the discoveries of this case study to the expectations established through the literature review was reflected upon in the presentation of the findings of this study. Further validity was apparent as findings of this study confirmed some of what the literature identified as expectations.

Every effort was made to make certain that the methodology for case studies was followed in data gathering, analyzing, and presentation so that reliability was established in this study.

Summary

In summary, the methodology for this study to answer the research question regarding teachers' perceptions of how professional practices are affected by Cognitive Coaching, was a case study design. The study included influence of grounded theory research methodology in that the hypothesis was not suggested except through the results of the collective data. The sample included employees of this single school district who achieved tenure previous to the last four years, participated in the Alternative Teacher Professional Pay System, and were currently employed under the school district teacher contract. Data collection included focus group interviews at three schools within the district and an electronic survey of the sample group as a means of addressing validity of the findings of the focus group interviews. Coding took place in steps by grounded theory analysis. Open coding occurred with each independent set of data initially. Data sets were combined through axial coding in order to isolate and clearly identify themes common for multiple data sources.

It was the intent of the researcher; teachers' perceptions of the effects of Cognitive Coaching on professional practices were identified. Findings reflect consistencies of the three focus group interviews as well as further validation of the data through surveys.

The theories created as a result of this study provides guidance to school leaders in identifying strengths gained through receiving Cognitive Coaching as well as considerations for improvement opportunities. The information clarifies teachers' perceptions of the effects of Cognitive Coaching on professional practices in a single school district as well as added further discussion to the existing data surrounding the use of Cognitive Coaching as a staff development practice for teachers.

Chapter IV

Findings

Introduction

This chapter will present the analysis of data collected and findings to answer the research question: What are teachers' perspectives of how professional practices are affected by Cognitive Coaching? The research examined the perspectives of teachers at multiple levels in a single school district that received Cognitive Coaching as a part of their professional development practice over a span of four years. The intent of this chapter is to identify the themes that surfaced on teachers' perspectives of the effects of Cognitive Coaching after four years. Interview data along with survey data will be shared to identify and discuss what teachers believe to have been their own professional practices that have been affected by Cognitive Coaching.

Organization and presentation of findings includes a review of archival evidence, themes discovered through coding of focus group interviews, follow up survey data for each theme, and a comparison to any similar themes in the literature reviewed. First, a look at the archival evidence shows what past school district surveys indicate in the areas of reflection and an understanding of the Cognitive Coaching model. Next, each theme is presented through the data collected at focus group interviews. Themes are described along with various quotations of participants to explain what participants perceived to be changes in professional practices after four years of Cognitive Coaching. Integrated with the presentation of each theme are the results of corresponding survey questions received from the larger number of teachers of the district meeting the criteria for the sample

group. The purpose of the survey was to support or negate themes of the interview participants' perceptions of how Cognitive Coaching affected their own professional practices. Survey results are shared as descriptive statistics showing the percentage of responses chosen from each of the five response options including: strongly agree, agree, no opinion, disagree, and strongly disagree. Responses left blank (1.3%) in the survey were not acknowledged in the descriptive statistics. Response results were rounded to the nearest whole number so total percentages may not equal 100%. A comparison is made between the survey responses in agreement and disagreement to each survey item and given as a ratio to show the strength of responses in one direction or the other. Interview responses are also presented in graph format in the figures section (figures 3 through 6). Finally, themes of this study that were recognized in the literature review are acknowledged.

Archival Evidence

Previous survey results evaluating the Alternative Teacher Professional Pay System for the school years of 2008-2009 to 2011-2012 were given to the researcher to consider any content directly addressing the research question of this study. Fifteen questions were asked of all participants of the district's Alternative Teacher Professional Pay System addressing their satisfaction with the coach to whom they were assigned, multiple aspects of the Alternative Teacher Professional Pay System, and their satisfaction with the program. Of the fifteen questions surveyed, two questions directly related to the research question of this study.

Question 6 of the previously administered district surveys asked participants to respond to: "My instructional coach helps me reflect about my work and supports my growth as a professional," through a Likert scale with response options of disagree, neither, and agree (Figure 1). The theme of participants' reflective capacities was also identified through the coding of the focus group interviews and further explored though the survey results collected by the researcher. Results of this survey question showed a strong majority in agreement and will be shared more in depth as the theme of reflective capacities is explored later in this chapter.

Question 7 of the previously administered district surveys asked participants to respond to: "I understand the coaching model my instructional coach is using," through the same Likert scale with response options of disagree, neither, and agree (Figure 2). Results of responses to this question for each of the four years surveyed ranged from roughly 87% to 93% indicating agree or strongly agree. The importance of the positive response to this question is significant since the coaching model used by instructional coaches was Cognitive Coaching. The response results of this question indicate that the participants of the Alternative Teacher Professional Pay System in the school district studied understood what Cognitive Coaching is and could therefore generate responses directly addressing this model, which was a part of their professional development over the past four years.

Emergent Themes

Reflective practice. Amongst the most densely offered themes of focus group participants was their perception of increased reflective capacity. Each of the three sites

often spoke about their use of reflection and how it has become more habituated in their professional practice. The word or forms of the word "reflect" were found 47 times in the transcriptions. One participant shared:

> I've seen the biggest change, I think, for me personally, in regards to the reflective side of things. I think there's a kind of that culture of reflection that has grown with how much we've had to do and worked on with our different coaches along the way. That's where I've seen a big change.

Referring to the questioning techniques used in Cognitive Coaching, a participant explained, "Because they do that open questioning. What did you think about this? It's like I had to think, I had to pull it out, and it wasn't just going to be given to me on a silver platter."

Question 1 of the survey was: Cognitive Coaching has helped me reflect more deeply about my professional practice. Participant responses were strongly in affirmation. Seventy-four percent agreed and 9% strongly agreed with this statement totaling 83% in agreement. Five percent had no opinion, 11% disagreed, and only 1% strongly disagreed. The comparison of those in agreement and those who disagreed showed just under a 7:1 ratio of agree over disagree (see Table 1). Given the results of the survey for this question, it can be established that teachers believed that Cognitive Coaching has had a positive impact on their reflective capacity as a part of their professional practice.

Consistent with the literature reviewed, participants of this study perceive a significant increase in their use of reflective practice. Multiple studies showed that the

push for deeper reflection during Cognitive Coaching gave participants more precision to their thinking and reflecting skills resulting in refinements of their instructional strategies (Alseike, 1997; Schlosser, 1998; Townsend, 1995).

Statements shared during the focus group interviews on reflection can be categorized into further subcategories. Participants explained their reflective practices through a lens of considering student interaction, their own social needs, a shift away from self-criticism, or the application of reflection to classroom practices.

Student interactions. Having been exposed to the reflective questioning techniques of Cognitive Coaching over the past four years, some teachers shared that they have adopted that form of questioning in regular classroom interactions with students. They shared that they find themselves asking students more questions that build depth of thought of the students rather than always giving them a typical answer that would be expected from a teacher. One participant explained:

> It's more of asking them to own it and to come up with, see if we can try to develop some of that intrinsic kind of evaluation so they can do some self-monitoring. I think a lot of that has developed since then [Cognitive Coaching].

Another shared:

> I find that I try using the reflective technique on my students. What did you think? How do you think that went? It's kind of very interesting, and so I'm practicing her [Cognitive Coach] method on my students. Because they [students] always want to know, "when do I 'x' [mark as complete] all this?" and I'll say, "what do you think? How did it go today? What score would you give yourself?"

> and they have to reflect and look at their scores, and I'm finding that, if it works for me, it's got to work for them, too.

One participant revealed her own tendency of self-monitoring her use of questions with students:

> The cognitive coaching approach definitely made me reflect on how I interacted with students… do I ask my students questions? When I observe them on what they're doing and how I think they could improve? Am I asking them open-ended questions or am I just making straight up opinions and observations on what I saw?

Question 5 of the survey was: Since Cognitive Coaching, I use more reflective questioning with my students in order to help them reflect on their own progress. Participants' responses to this question were mixed. For this question, 2% strongly agreed, 23% agreed, 30% had no opinion, 34% disagreed, and 5% strongly disagreed. Given the mixed results of this survey question and disagree responses favored, it cannot be established that the majority of teachers believe they use more questioning with students to help them reflect on their own progress. Roughly, only one out of four teachers responded that they use more reflective questioning with their students (see Table 1).

In the literature reviewed, Edwards and Newton (1995) wrote that those trained in Cognitive Coaching tended to use higher level questioning in their everyday classroom practices. It is possible that since the teachers of this study were recipients of Cognitive Coaching rather than actually being trained in it, as was the case described by Edwards

and Newton, that a direct comparison cannot be made. Teachers of this study were not trained in Cognitive Coaching nor did the majority of participants believe that they used more questioning techniques with students.

Social interaction. Cognitive Coaching sessions became a means to less isolation for some interview participants. It was conveyed that teachers often do not have time set aside to visit with other professionals about instruction and professional practice. Cognitive Coaching sessions gave teachers a chance to talk with other professionals about what they were doing, how students were performing, and other professional practices that arose during observational cycles. One participant expressed her value of the conversation over the opportunity for professional growth:

> I think just in the teaching profession it's nice to have somebody else who sees what you see to actually have a conversation about your own students with you. In that way, I find it enjoyable and it's nice for nothing else but to just vent or talk about it afterwards. Again, after that one bit of data collection, I try to change things, and sometimes I do, and sometimes I don't know what to do with this now. It just depends.

Another stressed, "I do like the chance to reflect in a verbal way with someone once in a while. I think that's definitely a strength." Another participant spoke of the benefit of time set aside for Cognitive Coaching to slow down a bit for the normal pace requirements of the teaching professions:

> I do a lot of reflection anyway, but it's helpful to have the time, setting that space aside to do it, because otherwise you always talk about teachers getting

> schizophrenic because you're grading the past unit, you're in the present unit, you're planning for the next unit. You're brain is going three different ways all the time as well as being asked thousands of questions every day. It's nice to set that time aside.

Question 17 of the survey was: Cognitive Coaching is important for me to make social and/or professional connections with others. Survey results revealed that 5% strongly agreed, 43% agreed, 24% had no opinion, 23% disagreed, and 2% strongly disagreed. A comparison of those in agreement and those who disagreed showed just under a 2:1 ratio of agree over disagree (see Table 1). Given the results of this survey question, it can be supported that teachers perceive Cognitive Coaching as a means to making connections with others. Teacher isolation is likely less prevalent due to the scheduled meetings between teachers and Cognitive Coaches.

The literature reviewed indicated that effective professional development cannot be done in isolation (Darling-Hammond & Richardson, 2009; Leach, 1996; Sawchuk, 2009). For many of the participants of this study, Cognitive Coaching assisted in making connections with others that may not have occurred without this practice.

Shift from criticism. Teachers in the focus groups spoke of their natural tendencies to look at themselves and their lessons from a critical standpoint. They discussed their practice of noticing the failures in their lesson delivery and seldom acknowledging the successes. As Cognitive Coaches used reflective questioning to invite teachers to talk about the things that were successful in the observation, teachers of the

focus groups shared their shift in reflection to consider also positives that occurred during observations. One participant mentioned:

> I have to look and reflect and that's not always the easiest thing to do, to see the positives. I can always see the negatives but it's like this really worked well because I did this. What would I change next time? What might have made it work better? It's got both sides to it but it's just more on that positive, what worked well and why?

Another shared:

> I'm always hyper-reflective, and not always in the most positive way, it's helped me to go deeper and actually broader too, and you know the saying, the more mature you get the less you know. That's where I'm at in my career and so while I have this kind of broad look at things especially with teaching, I also at the same time am deepening everything that I do.

One commented that Cognitive Coaches "don't criticize because I think you criticize yourself enough. You're very reflective about 'Oh my gosh, what did I do?'" Another expressed her willingness to take risks during observations and articulated:

> I knew if it didn't work, it wouldn't be like a black mark after my name. It would be, "Well, what do you think worked and what didn't work? I wish to help you reflect on it, not judge it."

Question 13 of the survey was: Cognitive Coaching helps me see the positives or successes in my lessons rather than just negatives. Survey results for this question were strongly affirming. Survey results indicated that 20% strongly agreed, 65% agreed, 11%

had no opinion, 2% disagreed, and 2% strongly disagreed. With 85% in the agreed and strongly agreed categories (a ratio of over 21:1), it can be established that teachers believe that after four years of Cognitive Coaching, they are more able to identify positives and successes in their lessons rather than just negatives (see Table 1).

The shift from self-criticism in reflecting on a lesson to acknowledging successes was not found in the literature reviewed. The practice of Cognitive Coaches asking teachers to begin by reflecting on what worked well in a lesson built capacity in the majority of teachers to recognize positives in their instruction. This is of significant value, because the ability to identify strengths brings the opportunity for coaches to lead the coachee to apply the strengths recognized to future lessons and practices as well as application to portions of an observed lesson that were less than desired.

Classroom practice. Teachers participating in the focus groups spoke of their reflective capacity gaining more depth in thought resulting in an increased ability to consider classroom practices. Speaking of the questioning of Cognitive Coaching, one participant shared:

> The cognitive coach always asks open-ended questions and makes you reflect. It forces you to sit down, go back over your lesson, and I think that she asked the same questions all the time that even without her sitting there, you can take your breath after your lessons, you can ask yourself the same questions. How did that go? Why did I do it this way?

Another spoke of how Cognitive Coaching "makes me rethink a little bit about what's going on in my classroom. It gives me an opportunity. It opens up some things that

couldn't possibly be opened if there wasn't a coaching opportunity that was in place." Another talked about:

> that opportunity to sit with your peer, or whatever, and to be able to actually talk about the instruction which is the most important thing of what our job is and to get that opportunity to reflect and then turn the tables and bring that back to the kids.

One shared a habituation of reflective practice with, "I just do it [reflection] more often and try and get better with just more depth to the reflection, analyzing what worked, what didn't, and why." Another simply stated, "It helps me as a teacher reflect and make it better next time."

Question 3 of the survey was: Self-reflection that creates new learning from Cognitive Coaching sessions transfers into my subsequent professional practices. Survey results showed that 12% strongly agreed, 63% agreed, 15% had no opinion, 5% disagreed and 2% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of close to 11:1 favoring participants in agreement that professional practices are affected by learning from Cognitive Coaching sessions (see Table 1).

The ability to apply learning from Cognitive Coaching sessions is of significant importance for continual professional growth. In the literature reviewed, Day (1999) stressed the importance of reflection to further develop teachers' ability to act professionally "over the span of their careers" (p. 222). One goal of Cognitive Coaching is to create self-modifying persons who discover meanings of experiences by evaluating

and analyzing through reflection and apply the learning to future challenges and undertakings (Costa & Garmston, 2002). The finding of teachers' ability to transfer learning to future practices is well supported in the literature reviewed as well as recognized as important for continual growth.

Also worthy of mention in the literature reviewed is the lack of application of material when new knowledge is acquired through a traditional staff development workshop format (Costs & Garmston, 2002; Joyce & Showers, 2002). Participants of this study strongly believed that they did apply learning to future practices when the learning came from their own Cognitive Coaching sessions.

Specific feedback. Participants from each of the three focus groups expressed a desire for more specific feedback than is typically given in Cognitive Coaching sessions. Though participants understood the limitations of Cognitive Coaching in providing feedback closer to evaluation, multiple participants revealed a readiness for something beyond their own reflection of all that took place during their observation. One participant expressed frustration when needing help but not finding Cognitive Coaching to be an effective resource. She contributed:

> Yeah, I don't know what else to do, and then your coach is just like, "I can see that that can be frustrating." Yeah, it is frustrating. I'm pretty sure you have some ideas or something. I think that's one of the weaknesses."

Another shared:

> I don't think that the conversations are often insightful, but I think I'm now to the point where I want a little bit of evaluation. Not evaluation like, "you're good,

you're bad," but more of, "have you thought about doing it another way?, or what did you like?, what did you not like?," but then also maybe offering things.

One shared her frustration with a lack of balance in the Cognitive Coaching sessions as, "I think sometimes the conversation doesn't seem even. A lot of me pouring my heart out and then a lot of, "yeah, I see how that would be." I want a little bit more." Another participants felt that especially when someone asks for help in an area of struggle, the coach should use their past observations to share what success have been observed in that area elsewhere.

Focus group participants discussed the unique position of the coaches and how they likely gain insight from all the observations they do and would have a substantial amount of technique to share if opportunity presents itself: "wouldn't it be cool if it came back to me, because we don't have the time to see everyone that we wish we could, to say:

> Hey Nancy, have you thought about doing this seating arrangement that way, because you just said you're struggling with 'x' so this would be one way to handle it. I just feel like I get so little of that when I'm so curious to know what other classroom teachers are doing. That seems like a missed opportunity.

Another suggested:

> Maybe there is a way to imbed that in the process without getting the feeling that this person is making a judgment about my goodness or badness as a teacher but extending our repertoire, which I think everybody wants to do.

Another added:

> I would even love if they could come back and say, "I think the benefit of the strategy is that I'm seeing this, this, and this happened with the students that I observed. One thing you want to keep in mind about the strategy is the shortcoming of it." Even that would be helpful because it's just another perspective coming back.

Question 10 of the survey was: More specific feedback and improvement ideas from my Cognitive Coach would better assist in my professional development. Survey results from this question indicated that teachers that participated believed that their professional development would be better served if their Cognitive Coach would provide more specific feedback and ideas for improvement. Survey results showed that 17% strongly agreed, 43% agreed, 17% had no opinion, 22% disagreed, and 1% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of approximately 2.6:1 favoring the need for more specific feedback and ideas for improvement (see Table 1). Cognitive Coaching, as a conversational framework, favors encouraging reflection from the teacher that helps them to establish their own needs rather than providing such feedback. However, results from the teachers of this study show that Cognitive Coaching may lack this important element for many teachers' professional development.

In the literature reviewed, Townsend (1995) shared that those with more reflective personalities benefitted more from Cognitive Coaching than those with non-reflective personalities. It is important to recognize that people learn and grow professionally in

different ways. Professional development must meet the requirements of teachers and align to their goals and needs (Leko & Brownell, 2009). The importance of personalized learning for professional development is supported by research (Bubb & Earley, 2009; Darling-Hammond & Richardson, 2009). Though the participants of this study perceived several benefits of Cognitive Coaching, the majority favored the need for more specific feedback and ideas for improvement than the Cognitive Coaching model provides. The direct need for specific feedback was not available in the literature reviewed, but clearly personalization in professional development was recognized as important. For the majority of participants of this study, personalization could be addressed by the need for specific feedback and ideas for improvement.

The following subthemes of content area expertise and teaching level experience were not available in the literature reviewed but directly address the perceived need of participants to receive more detailed feedback and ideas for improvement.

Content area expertise. As an extension to the request for more evaluative feedback, participants strongly established the need for their coaches to be experienced in their content area. More prevalent in the middle and high school level focus groups, participants shared experiences that were not effective growth opportunities due to the incompatibility of the coach's background with their teaching assignment. One shared in reference to her specialized reading area, "One of my coaches just could not wrap their mind around how it feels more informal, and how different everything worked, and so there was a little bit of head-butting there." Another shared:

> If it's really important that you convey certain facts or information, or a way of doing something, and they don't understand why you're wanting to hit those points, or they can't give you helpful ways to really look at a situation because they just don't know. There are a lot of things that are very general about teaching, but some things you have to do in a way because that's what you feel it takes.

Another commented, "It's not just like they're understanding what you're doing, someone who had reading background would have also been on the same page. That would have been nice."

Question 19 of the survey was: I would experience more professional growth if my Cognitive Coach were an expert in my content area. Survey results showed 17% strongly agreed, 40% agreed, 15% had no opinion, 23% disagreed, and 2% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of just under 2.3:1 in favor of the need for the Cognitive Coach to be an expert in the content area of the teacher (see Table 1). This theme is closely related to the need for specific feedback and ideas for improvement from the Cognitive Coach in the previous theme. The majority of teachers in this study believed that their professional development would benefit from content area expertise on the part of the Cognitive Coach.

Teaching level. Participants spoke of the need for experience at the students' level as well. Some spoke of less benefit when working with a coach who lacked a similar level of teaching experience. A focus group member shared:

> I don't think I've had a coach where they've spent most of their time in a middle school background, and I think this is a unique animal that we're in. Somebody watching, whether it's content or level, they're going to be scratching their head or whatever, and you're like, "This is how it works. Yes, 13 year olds do these things," or whatever. I think that can have an impact as well.

Question 12 of the survey was: I would experience more professional growth if my Cognitive Coach were experienced with my student grade level. Survey results showed that 24% strongly agreed, 32% agreed, 17% had no opinion, 26% disagreed, and 1% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of just over 2:1 in agreement with the need for similar grade level experience of the Cognitive Coach (see Table 1). Results of this survey question are reasonably comparable to the results of the themes of content area expertise and need for specific feedback. This further indicates the teachers' perception of a need for their Cognitive Coach to be more closely related in experience and content area in order to identify and provide suggestions for improvement.

Planning. Another emergent theme that emanated from the focus group interviews was how Cognitive Coaching affects planning and how teachers perceive changes in their planning. Several participants spoke of their tendency to spend significantly more time planning and perfecting lessons that they plan to have observed during their Cognitive Coaching cycle. From the first focus group, a participant shared:

> Prior to those observations, I always make sure that I'm covering all my bases and designing what that observation is going to look like, "Am I crossing all my T's

> the dotting all my I's when I'm creating the lesson?" I think I put more thought into it than I probably would have otherwise.

Similarly, another acknowledged:

> I know before they come in and observe, I always take the time to really look at that lesson and dissect that lesson, more than I would have otherwise, which I think causes me as a teacher to grow. In fact, I think every time before they observe me, I put more thought into the lesson, and I think it's just it's tighter, it's designed better.

Interestingly, a participant in agreement with their extra effort in planning for observations also questioned himself as to whether or not that extra planning had an impact outside the scheduled observational cycle. Within the transcriptions there is evidence that some participants found a connection between careful planning for observations and professional practices. One participant revealed that such practices have "become part of the norm" for her and called the intentional planning "second nature." Another participant used the observational opportunity to dissect less successful lessons by "trying to pick a lesson that I haven't been happy with, so that I know that I'm going to give it that extra push, and then it will be better."

In addition to planning more meticulously for single lesson, one participant looked at his own planning changes with a long-term consideration:

> Not just the daily to the weekly planning, but the big picture, long-term planning. Where maybe eight years ago I'm not necessarily thinking about, "I'm in

September. Where do I see this unfolding in mid-December?" but I do a lot more of that now.

It was clear by the sharing at each of the focus group interviews that planning for lessons that were scheduled to be observed were granted extra attention to detail and carefully crafted design. Though some interviewees felt that careful planning carried into future practices, not all were in agreement.

Question 9 of the survey was: I plan for lessons more carefully when I know that am going to be observed by my Cognitive Coach. Survey results showed that 21% strongly agreed, 45% agreed, 6% had no opinion, 24% disagreed and 4% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of just under 2.4:1 favoring those who plan for lessons more carefully for lessons that will be observed (see Table 1).

Question 18 of the survey was: Since participating in Cognitive Coaching, I am more particular with my lesson planning on a regular basis. For this question, survey results showed that 1% strongly agreed, 34% agreed, 26% had no opinion, 32% disagreed, and 5% strongly disagreed. Results of agreement and disagreement for this question were close to even with one percent favoring disagreement (see Table 1). Given these results, it cannot be established that after four years of Cognitive Coaching, teachers believe that careful lesson planning for observations continues in future non-observed lesson planning.

Results of survey questions 9 and 18 strengthened the perceptions of the focus group participants. Teachers of this study commonly recognized their increased attention

to planning for lesson that are observed but were less certain of whether or not the addition attention in planning was practiced in subsequent lesson planning.

In the literature reviewed, Alseike (1997) stated that those using Cognitive Coaching improved in the phases of planning, teaching, analysis, and applying. In this case study, results do not align to the literature reviewed in the area of planning since a majority did not agree that planning was affected beyond the lessons being observed by their Cognitive Coach.

Focus on specific students. Each of the three focus groups referenced an increase in their focus on specific students after four years of Cognitive Coaching. Participants acknowledged their experiences of reviewing data collected at observations, reflection emphasis with their coach, and instructional practices in place due to the gained awareness of the need to focus on specific students. One participant remarked that she "just targets the kids differently." In her past practice she was satisfied with attending to only students who asked for help. She explained that her focus is now on specific students that don't necessarily ask for help but need it. She declared, "I target certain kids that I go to help specifically. I didn't do that before the coaching."

Participants mentioned that they requested specific data be collected during observations and used that data to better focus on specific students. One participant who was interested in balanced gender interactions during instruction stated:

> I had my coach once tally how I called on gender to see if I was favoring one gender over the other. I think at the time when I was being observed I was very aware of it, so it was pretty equal, but then to walk away from that and keep that

> in the back of my head, as I moved forward, I'm more aware of it now, two years later.

Another participant offered that her intentionality of including every student in some manner during an observation created intentionality in future practices.

Teacher attention to specific students based on academic need was significant. Focusing on specific students for the purpose of assuring learning was a common theme. One participant explained:

> Now I'm tracking students, and then have kids that get below a certain score, I'm pulling them aside and asking them how they prepared, seeing what they could do more on top of that. For the next lesson, I, of course, would be hitting that much more with listening or vocab or whatever the weak point was.

Another was clear that, "I'm being real particular about how I'm targeting certain kids and how are we figuring out if they have mastered the material, and that's making me look at the kids differently." Another participant expressed her personal growth in addressing specific student needs by sharing, "It affects the way that I talk with the students and making sure that I'm hitting all their different levels rather than before, you know, you just make your lesson plan." One felt that her experience with Cognitive Coaching "really opened my eyes to what I'm doing with all students while I'm differentiating. That helped me with what I was doing with students."

Continually monitoring one's self with student focus in mind was of importance to a participant who shared that she asked herself regularly:

> Who do you have to make sure you connect with that day? Who is the quiet kid that isn't a problem but isn't engaged either that you can say where will I move that kid so that I can keep better track of him for example, or her? How can I make sure that I make some kind of personal connection with that kid moving forward?

The theme of an increased focus on specific students was significant in the focus group interviews. Survey data collected also supported the teachers' perspective of an increase in focus on certain students and student groups.

Question 7 of the survey was: Cognitive Coaching has made me focus more on specific students of students group during planning. Results showed that 10% strongly agreed, 45% agreed, 20% had no opinion, 22% disagreed, and 2% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of approximately 2.3:1 in favor of those in agreement that they focus more specifically on specific students and student groups during planning (see Table 1). A second related question was surveyed relating to the same theme of focus on specific students. Question 15 of the survey was: Cognitive Coaching has made me focus more on specific students or student groups during instructional delivery. Results for this question indicated 2% strongly agreed, 44% agreed, 18% had no opinion, 29% disagreed, and 4% strongly disagreed. The comparison of the responses agreeing and disagreeing with this survey item was approximately 1.4:1 favoring agreement, which is slight in comparison to the results of the other themes surveyed (see Table 1). A comparison of questions 7 and 15 show that there is significantly more favoritism in the survey results

for attention to planning for specific students than to instructional delivery focusing on specific students. Though there is a very slight difference in the results for focus on specific students during instructional delivery, given the participant size, it cannot be concluded that teachers' perceive a change in their attention to specific student during instruction.

A greater focus on specific students or student groups was not available in the literature reviewed. However, Alseike (1997) considered general planning to have improved through Cognitive Coaching. In this case study, teachers perceived an increase in planning for specific students but not overall planning. Given the practices of reflection with Cognitive Coaching, it is possible that the subject of specific students was common in Cognitive Coaching sessions for the participants of this study. As teachers reflect on their own successes and challenges, they may isolate specific students and therefore plan accordingly. With the known achievement gaps in education, planning for specific students or student groups is an important move forward to meet the needs of every student.

Student achievement. The theme of student achievement generated much discussion at each of the three focus group interviews. Discussions included teachers' perspectives of identifying student achievement, clear measurements of student achievement, monitoring student achievement, what impacts student achievement, and questions of whether or not student achievement is impacted by Cognitive Coaching. Findings in the area of student achievement are presented through the areas of identifying

achievement, clear measurement of achievement, and overall impact on student achievement.

Identifying achievement. Focus group participants commonly made statements related to student achievement that clarified their perception of exactly what achievement looks like and the accuracy of identifying what the achievement is or needs to be. Though Cognitive Coaching sessions likely varied depending on needs of the teacher and expectations for data collection during observations, those looking closely at student achievement noted a specific tendency to identify exactly what was expected to be achieved by students. One participant stated:

> The emphasis on assessment and how do you know they know it has been really helpful, because that's the part that I really need to stop and make sure that they're getting it along the way. That's been a very definite change for me.

Another offered that the use of data collected through the process assisted in identifying what students achieved within individual classes as well as how different classes compared overall, thus assisting in future planning and addressing teaching practices in one class compared to another and individual student concerns. Participants also indicated their perception that Cognitive Coaching has assisted them in habituating the practice of looking at the level of student achievement more closely as well as what it looks like and how they measure it.

Question 6 of the survey was: After four years of Cognitive Coaching, I am better able to identify specific student achievement levels. Results for this item showed 4% strongly agreed, 34% agreed, 30% had no opinion, 29% disagreed, and 1% strongly

disagreed. Given the closeness of percentages for and against agreement with this statement and the sample size of 82 survey participants, it cannot be concluded that a teachers generally believe they are better at identifying student achievement after four years of Cognitive Coaching. The ratio in agreement to disagreement is slightly less than 1.3:1 favoring agreement that teachers believe they are better able to identify student achievement levels (see Table 1).

Clear measurement of achievement. Participants expressed their tendency to more closely consider exactly what it was they were measuring as they check for student understanding. A common theme described was that teachers, in their increase of self-reflection, tended to focus on getting clear measurements of the achievements that were expected from their students. One participant speaking of her grade level team revealed, "it's made us, as a second grade team, become more reflective and more purposeful in looking at our evaluations and whether they are meeting what we're supposed to do, and then designing our instruction to match it." Another participant spoke of measuring results by stating that his experiences with Cognitive Coaching has helped to "make sure that you can actually measure whatever we're trying to achieve and then design the assessment tool, whether it'd be formative or summative, that's going to document that." When referring to instructional events, one teacher shared that she asks herself, "Okay, were my goals and expectations explicit? Did they learn the material in that lesson? How do I check that they learned, and then what do I do?"

Question 11 of the survey was: After four years of Cognitive Coaching, I am better able to measure student achievement. Survey results showed 1% strongly agreed,

43% agreed, 23% had no opinion, 30% disagreed, and 1% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree presented a ratio of just over 1.4:1 in agreement with this statement (see Table 1). This slight difference in teacher perception indicated that though approximately 44% of the teachers surveyed believe they are better able to measure student achievement after four years of Cognitive Coaching, the majority does not support this as a recognized theme.

Overall impact on student achievement. Overall, teachers' perception of whether or not Cognitive Coaching was responsible for overall increased student achievement was not supported uniformly through the focus group interviews. During focus group interviews, there was a consistent perception that Cognitive Coaching sessions were more likely to affect immediate and short term increased measures of student learning rather than long term, overall student achievement. Participants stated that the most likely impact on student achievement took place during the Cognitive Coaching cycle and did not necessarily impact achievement as measured through standardized assessments or long-term gains. When asked to share perceptions of increased student achievement impacted by Cognitive Coaching, one participant described his perception as:

> In a micro sense, not in a macro sense, but in some of the smaller instances, yes, in making me more aware as a planner and an evaluator, it's maybe helped a little bit, but in a larger sense, I'm not sure.

Another stated, "I think in overall teaching practices, it helps, but in terms of the macro-ness of the school and standardized test, I don't know that that's going to show up." Another explained his perception as:

> To walk away and say this particular coach has really had this impact on my teaching, I honestly could not come out and say that's true to any particular coach. Even though they're great coaches and great people, I can't link it [student achievement] to it.

Another participant paraphrased their thinking with, "I think it's more perfecting the process in a way, which again maybe longitudinally will end up impacting student achievement, but I don't know that we can say that yet." In reference to other teacher professional development practices in the school district including Professional Learning Communities, using formative assessment measures, building level staff development, site improvement focus, and self-directed growth practices, one participant asserted, "I think I feel more of a correlation with that stuff [other professional development] and achievement than I do with the Cognitive Coaching sessions I've had."

Focus group interview participants who perceived Cognitive Coaching as having a more positive impact on student achievement shared their reasoning through a lens of looking more deeply at instructional practices, self-improvement, and better teaching. One participant felt that Cognitive Coaching:

> was really there to help you reflect on your teaching, and the attempt was just to make sure that we are just trying to push ourselves as professionals, to be the best teachers we can be, because that will impact student learning.

In consideration of what generates increased student achievement, one participant stated:

> Well, my view is that better teaching produces student achievement, bottom line. I don't know what else to say. So anytime you're improving your teaching by

> being more reflective and having someone help you do that, students are going to achieve.

Another indicated:

> The things I've taken on with my coach have been deeper looks at whatever it is I'm doing with students. That's what it's been for me and I know that that deepening is producing greater achievement in my students. It's very rewarding.

Another thought expressed on student achievement was, "It directly affects your teaching which I believe directly affects student achievement. In that way it is so much better than just these generalized staff development type events."

Question 4 of the survey was: I believe Cognitive Coaching has increased student learning for immediate, short-term measures such as a single lesson or unit. Results for this survey item showed 4% strongly agreed, 56% agreed, 18% had no opinion, 15% disagreed, and 2% strongly disagreed. A comparison of the responses between agree/strongly agree and disagree/strongly disagree revealed a ratio of 3:1 in favor of the perception that Cognitive Coaching has increased short-term student learning (see Table 1). A second survey question was asked related to student learning. Question 16 of the survey was: I believe Cognitive Coaching has increased overall student achievement for the students I serve. Results for this survey indicated 2% strongly agreed, 35% agreed, 32% had no opinion, 23% disagreed, and 4% strongly disagreed. A comparison between agree/strongly agree responses and disagree/strongly disagree responses revealed a ratio of just under 1.4:1 in favor of agreement with this statement (see Table 1). An evaluation of question 4 and question 16 revealed a strong preference acknowledging teachers'

belief that Cognitive Coaching has had a much greater impact on short-term student learning over overall student achievement.

The literature reviewed shared that Cognitive Coaching produces a variety of benefits for professional development. More than anything, Cognitive Coaching focuses on the individual being coached to assist in creating self-directed, reflective individuals able to function holonomously (Costa & Garmston, 2002). Many consequences of Cognitive Coaching identified through the literature reviewed are related to the teacher rather than the student. Reflective practice, a trusting environment, efficacy, job satisfaction, and collaboration all focus on the teacher, not the student. It is not unexpected that the participants of this study did not perceive an increase in student achievement due to Cognitive Coaching. It can be considered that qualities such as reflective practice, collaboration, and efficacy contribute to practices that may assist in student achievement, but these qualities themselves are reflective of the teacher and their professional practices, not the student.

If the ultimate goal of professional development for teachers is to improve student achievement, it could be discussed that Cognitive Coaching might be a means to supporting an initiative aimed at student achievement. Cognitive Coaching as a support system for implementation of a new program is better supported by research (Batt, 2010; Joyce & Shower, 1996; Uzat, 1998).

Heightened awareness. Participants brought the theme of awareness forth 21 times during the focus group interviews. Awareness was divided into multiple categories based on what the discussions yielded. Focus group interview participants described

heightened awareness of student behaviors, students' level of understanding, teachers' interaction with students, and student engagement as being at a higher level of awareness since Cognitive Coaching.

Awareness of student engagement. First, an increased awareness of students' on and off task behaviors, participation, and engagement during instruction was presented. One participant described, "He [the coach] could come in and just say, "You know, that's something that I see," and I was way more aware of it because I should be looking for that. I should be watching and coaching myself." In reference to wait time, one participant shared that through an observation cycle, she became aware of her need to increase wait time when asking questions and now allows more students to think through questions posed thereby increasing student engagement through increased thinking time.

Question 2 of the survey was: Since participating in Cognitive Coaching, I have an increased awareness of student engagement and participation during classroom instruction. Survey results showed 9% strongly agreed 51% agreed, 23% had no opinion, 15% disagreed, and 2% strongly disagreed. A comparison between agree/strongly agree responses and disagree/strongly disagree responses revealed a ratio of just over 3.5:1 in favor of those in agreement with this survey item (see Table 1). For the participants of this study, it can be established that, after four years of Cognitive Coaching, the teachers believe they gave a heightened awareness of student engagement and participation during classroom instruction.

Awareness of interactions with students. A second, related theme on awareness was an increase in teachers' consciousness of how they were interacting with students

during a lesson. Participants explained that they became more aware of whom they were calling on, how often, and whom they were missing. Participants also stated that through their observation cycles, they became aware of the assistance they offered to some students over others. One participant shared:

> It affects the way that I talk with the students and making sure that I'm hitting all their different levels rather than before, you know, you just make your lesson plan and your lesson is to cover the curriculum, whereas now I can look at it a little different, like I know my lesson, but I am teaching to them [students] and not just covering the curriculum. That makes sense.

Question 14 of the survey was: Since participating in Cognitive Coaching, I have an increased awareness of how I interact with students during instruction. Results showed that 10% strongly agreed, 52% agreed, 13% had no opinion, 21% disagreed, and 1% strongly disagreed. A comparison between agree/strongly agree responses and disagree/strongly disagree responses revealed a ratio of just over 2.8:1 in favor of agreement with this statement (see Table 1).

Awareness of student learning. A third, related theme on awareness was that interview participants perceived an increase in awareness of identifying achievement and consciously noticing students that may not understand the expected learning. One participant referred to her own thought process in awareness of achievement by asking herself during lesson delivery:

> Okay, which ones are really having trouble and what can we do to scaffold it more and really build it? I think it has made me, because I'm accountable for it,

look at that thread as we go through and not just overall asking myself if they are passing my course.

Another participant contributed, "I really need to stop and make sure that they're getting it along the way. That's been a very definite change for me." Teachers also discussed an increase in awareness of their own attention to specifically what skill or content students should gain through a particular instructional event. Focus group interview participants mentioned how they look more closely at the expected learning of students for a particular instructional event and remain conscious of that intent throughout their instruction.

Question 8 of the survey was: Since participating in Cognitive Coaching, I am more aware of identifying students' learning and achievement during a single instructional lesson. Survey results showed that 4% strongly agreed, 49% agreed, 18% had no opinion, 23% disagreed, and 2% strongly disagreed. A comparison between agree/strongly agree responses and disagree/strongly disagree responses revealed a ratio of just over 2:1 in favor of the belief that teachers are more aware of identifying students' learning and achievement during a lesson (see Table 1).

The theme of increased awareness was consistent in the survey response data. In all three areas of increases awareness, survey participants strongly favored choices of agreement. It can be established that after four years of Cognitive Coaching, participants of this study believe that they have an increased awareness of student engagement, interaction with students, and student learning during instruction.

Increased awareness of student engagement, interactions, and learning were not available in the literature reviewed. The increased level of awareness of this study is likely not only a result of increased reflective practice but also a result of the quantity of data collected through the series of observations done with participants. Awakani (1996) stressed that Cognitive Coaching is demanding of time and without the time commitment available, effectiveness may suffer. The participants of this study participated in the observational cycle three times per year for four years. This is a significant difference from the common tenured teacher evaluation cycle of once every four years in the district studied. Research supports that increased density and length of time with Cognitive Coaching positively affects professional development (Foster, 1989; Cochran & DeChesere, 1995; Edwards et al., 1998). Clearly, much more time has been allotted for observations with a Cognitive Coach than was previous to this practice.

Due to the additional time commitment, data collected at each observation provided a great deal more information on a regular basis than was previously the case. Data to be collected was mutually agreed upon at the planning conference, collected by the coach during the observation, and reviewed and reflected upon at the post conference for every observational cycle. The significantly increased exposure to data collected at observations should increase awareness just by its very presence but is also likely increased by the Cognitive Coach directing reflection based on the data collected. Though the literature reviewed does not address increased awareness, it is a significant contribution to teachers' ability to develop professionally starting with a better awareness

of all that is in existence during instruction and applying that awareness to future professional practice that will address challenges faced every day in education.

Summary of Findings

The archival evidence of this study presented two important details. First, teachers surveyed believed that encouraging reflective practice was a role of their Cognitive Coach and that it supported their professional growth. Secondly, and very importantly, was that the former surveys strongly support that teachers understood the model of Cognitive Coaching. With that understanding, this study was able to assume that when referring to Cognitive Coaching, participants understood what was meant and could apply their experience with Cognitive Coaching directly to the questions asked.

Many different themes emerged from the three focus group interviews. A follow up survey either supported or negated different themes suggested by the focus group participants. Focus group interviews revealed six major themes participants perceived as being effects of Cognitive Coaching. The six themes were: the appearance and increase in reflective habit as a part of professional practice; the acknowledgement of effects on planning for instruction; an increased focus on specific students or student groups; a heightened awareness of different aspects of instruction; a need for specific feedback to consider for professional change; and a consideration for the effects of Cognitive Coaching on student achievement. Each of the six themes brought the emergence of subthemes isolating more precision in areas concerned with each theme.

Reflective practice was strongly supported in the survey as a perceived change due to Cognitive Coaching. Further consideration of the focus group data divided

reflective practice into four different subthemes. The use of reflective questioning more typically used in Cognitive Coaching as suggested by the focus groups was not supported by the survey and cannot be considered a perceived change of the participants. Focus groups, as well as survey respondents, considered Cognitive Coaching to be important for making social and/or professional connections with others, therefore lessening isolation that is typical for teachers. Focus groups interviewees shared their past tendencies to focus on faults and negatives of lessons when self-reflecting. Due to Cognitive Coaching, they felt that they had gained the ability to now acknowledge positives and successes during reflection, which was also supported by the survey. With very strong survey support, participants shared their belief that new learning that emerged from Cognitive Coaching sessions transferred into future professional practices.

Teachers' perceptions of the effects of Cognitive Coaching in the area of lesson planning were divided into observed lessons and ongoing lesson planning. Interview participants suggested that they considered their attention to detail in lesson planning to increase when the lesson was being observed but also indicated their uncertainty of similar attention to planning detail for subsequent lessons not observed. Survey questions supported that teachers believed themselves to plan more carefully for lessons observed. They also indicated that the increased attention in planning for lessons is not a practice that they have changed outside of the observation cycle.

The theme of increased focus on specific students or student groups was common to all three focus groups. Further dissection revealed that teachers of the focus groups believed to have increased their attention to planning for specific students or student

groups as well as their instructional delivery targeting specific students. The survey supported teachers' belief that they planned more specifically for particular students or student groups as a result of Cognitive Coaching. However, the survey results could not support the subtheme of instructional delivery that focused more on the specific students.

A heightened awareness of different aspects of teaching was strongly mentioned in the focus group interviews as well as supported by the survey results. Three subthemes emerged through the focus group interviews including a heightened awareness of student engagement during instruction, a heightened awareness of teacher interactions with students, and a heightened awareness of student learning during instruction. Teachers of this study believed that they were more aware of each of these areas after their experiences with Cognitive Coaching.

The need for specific feedback and suggestions for improvement from the Cognitive Coach was established by the focus group interviewees and favored by the survey. Interview participants suggested both the need for content expertise of the Cognitive Coach to match that of the observed incident as well as experience in the grade level common to the person being observed. Both of these subthemes suggesting the need for specific feedback from the Cognitive Coach were supported by the survey and can be considered a perceived area of need for more effective professional development by participants.

Student achievement was discussed by each of the three focus groups. Different participants perceived any changes due to Cognitive Coaching from different approaches. Some shared that they felt better at identifying student achievement, some believed they

had increased their ability to measure student achievement, some perceived student achievement as being only impacted short-term as related to a lesson, and some considered overall long-term student achievement. Of the four subthemes of student achievement, only one was supported by the survey results. Survey participants believed that Cognitive Coaching had increased student learning for immediate measures such as a single unit or lesson but did not support any of the other three subthemes. According to the perceptions of the participants of this study, it cannot be determined that general student achievement has generally increased due to Cognitive Coaching.

Literature reviewed for this study aligns to some findings but is not consistent with others. Among those themes supported by the literature were increased reflective practice and less isolation duo to a social and professional connection with others. Inconsistent with the literature was the lack of increased questioning techniques in student interactions and the lack of overall increased detail in planning for instruction. Discoveries not found in the literature review of this study were an increase in focusing on specific students or student groups and a heightened awareness of different aspects of instruction.

Findings of this study presented a number of teachers' perceptions of the effects of Cognitive Coaching on professional practices. According to the teachers of this study, Cognitive Coaching has affected many of their professional practices that may address the perpetual need for improvement through professional development.

Chapter V

Discussion

Introduction

The purpose of this study was to identify teachers' perceptions of how professional practices are affected by Cognitive Coaching. The study considered the perspectives of teachers who participated in professional development over the past four years in a single school district that utilized Cognitive Coaching for observational cycles. The study used focus group interviews to collect initial data and was followed by a survey to all teachers meeting the sample group criteria to strengthen or negate themes that emerged from the focus groups. Archival survey data was also reviewed and used as applicable to the study. Overall findings of this study presented several professional practices perceived by teachers to have been affected by Cognitive Coaching. This chapter will discuss implications of the findings of the study as well as share recommendations for further research on the subject of the effects of Cognitive Coaching.

Implications

Like any professional development activity, people learn and grow in different ways. It is important to acknowledge that not all teachers will gain the same degree of growth as their peers simply because people have diverse preferences for learning. Success Cognitive Coaching for professional growth is dependent on the individual's belief in the program and choice to utilize the sessions to better their practices and grow professionally. Like any other opportunity, one must want to fully participate and trust in the system of development in order for it to do what is intended. One thing this study

revealed is that not all people will benefit from the same model of staff development. Going forward, we must keep in mind that the attention we give to personalized learning for our students should also be considered in the approaches we use to teach adults.

Of interest in the findings of this study was teachers' increased attention to planning for lessons that were to be observed by their Cognitive Coach. This has both positive and negative associations. Cognitive Coaching has provided the opportunity for teachers in this district to be observed on a regular basis. Without the scheduled observation requirement, teachers may seldom make the added effort in perfecting lesson design and instructional planning. The practice of regularly scheduled observations has been the gateway for many teachers to look closely and make an extra effort to perfect lesson design. Though for most participants, extra planning was limited to observational cycles, some practice of detailed planning is better than none. In opposition, lesson design fabricated for the sole purpose of being observed may not be reflective of typical lessons for teachers. When that is the case, teachers are likely to reflect on a lesson that was developed with more intent due to being observed and will not be addressing lessons that are more typical for the teacher. This scenario appears to be a missed opportunity for teachers to evaluate their usual instruction, which is likely to be what is used most often with students. A means to invite teachers to be observed in a manner that will allow their reflection to affect lessons beyond the observation would seem more appropriate.

The increase of reflective practice identified in this study was common in the literature reviewed as well as the intent of Cognitive Coaching as designed by Costa and Garmston (2002). For the teachers of this study, increased reflective practice was

generally considered a result of Cognitive Coaching and has helped them think more deeply and regularly about their professional practice. This is significant because through routine self-reflection, teachers learn to constantly self-monitor and self-adjust to realizations without the presence of a Cognitive Coach. Reflective capacity also helps people to be more conscious of actions. It helps a person think more before, during, and after lessons about all that is happening in a classroom. Thinking about things like calling on genders, focus for at risk students, etc. makes teachers more conscious of their action and therefore likely act according to thought. The skill of self-reflection should continue to be a practice of the teachers after the Cognitive Coaching is no longer a part of their regular professional development. Because the need for professional development is ongoing, reflective practice will help individuals as they plan, instruct, monitor, and adjust to meet the needs of their students.

Of the themes presented in this study, heightened awareness of teachers in the areas of student engagement, interactions with students, and student learning during a lesson were all perceived as effects of Cognitive Coaching. The importance of teachers being aware of all that is taking place during instruction is significant. Teachers are bombarded with constant stimuli from start to finish of every lesson. The ability to notice and follow all that takes place is essential for monitoring students as they learn and make adjustments as needed. The data collection done by the Cognitive Coach during observations can reveal things that are easy to miss when only the teacher teaching is present during instruction. The opportunity to have a second set of eyes monitoring things that are difficult when alone is the first step to addressing issues of all kinds. If a

teacher is not aware of something taking place during their lesson, they cannot address it. If this heightened awareness is not being developed through regular professional development, practitioners would benefit from finding alternate means to collect data for teachers during lessons so that they can grasp a deeper and broader realization of what takes place during lessons and plan for it accordingly. Heightened awareness of teachers in this study is a convincing attribute of Cognitive Coaching as it contributes to meeting the needs of every student.

At a time when public education is well aware and in tune to achievement gaps as well as in search of how to rid them from our students' performance, the increased focus on specific students or student groups is imperative. In order to address gaps in performance, teachers and schools must be intentional. Teachers of this study recognized their increased focus of specific students in the area of planning. Beyond being aware of the gaps, after four years of Cognitive Coaching, teachers believed that they now plan more intentionally for specific students. Public educators must continually seek effective ways to lessen these achievement gaps and can consider the model of Cognitive Coaching to be a possible avenue to redirecting teachers to make needed changes. Current workshop trends of attempting to help teachers understand institutional racism seldom do more than create awareness. Until professionals are intentional and plan in ways that move toward an equal education for all students, nothing will change. The teachers of this study believed that they have made changes in their student focus when planning, which is a solid first step in the right direction. Practitioners must guide

professional development that allows teachers to act toward meeting the needs of all student groups equally.

As mentioned earlier in this chapter we should not expect that a one-size-fits-all professional development model would be effective for everyone who participates. Professional educators have different needs, different personalities, different levels of trust, and many other aspects that separate them from their peers. The teachers of this study participated in professional development utilizing Cognitive Coaching for four consecutive years. It is clear that the benefits for some exceed the benefits for others. A strong commonality among participants was that they believed they would benefit more from receiving specific feedback and ideas for improvement from their Cognitive Coach than is currently practiced. Also identified was the need of the teachers to have their Cognitive Coach be an expert in their own content area and experienced at their grade level. In consideration of this theme, it is apparent that teachers are willing to take risks and are trusting of a more evaluative system than is allowed by Cognitive Coaching. Participants spoke of their common impatience with always being expected to come up with *the answer*. They shared that sometimes it would be better for them if the Cognitive Coach could step into a more evaluative role and share what they have witnessed in their experience through other observations. Different factors are important when considering this need for specific feedback including the content area expertise and grade level understanding of the Cognitive Coach. To meet that need, a school district would need a very diverse pool of educators who would be available to observe others. Due to the many curricular options available to students, this could prove difficult. Also, to present

opportunities for improvement as the observer, the model of Cognitive Coaching would likely be replaced with a more traditional approach to teacher evaluation. Peer observations or Cognitive Coaches who are divided between a classroom and observational duties might be considerable to providing the more specialized feedback. Regardless of how it is accomplished, it is always important to recognize and address the realization that not all people will benefit from the same style of professional development practices. Options for personalized professional development are needed if we expect to close the professional development achievement gap between our educators when all participants are expected to gain equally from a single model.

What these findings present is that, according to teachers, Cognitive Coaching affects many encouraging professional practices. The importance of awareness of all that takes place in the classroom along with the increased ability to independently reflect on professional practice are welcome opportunities for strengthening our ability to bring every student to success. When teachers specifically plan for specific students who might be struggling, a first step is made in a direction to help them succeed.

Recommendations for Further Research

Results of this study are limited to being a single case study of a single school district. Further research might explore the findings in other school districts in tests of consistency with the findings of this study. School districts of various demographic and geographic diversity may be studied to find whether or not the findings of this study are consistent with other districts.

The purpose of this study was to identify what teachers perceived as effects of Cognitive Coaching. Future researchers might do research specifically aimed at any of the themes identified by this participant group. Future research could formulate a hypothesis on any one of the six themes presented in this study. Examples of hypotheses directly related to the findings of this study might include: Teachers of school district X will show an increase in their reflective capacity after Cognitive Coaching; Cognitive Coaching strengthens teachers' ability to focus on specific students or student groups; Cognitive Coaching creates in teachers a heightened awareness of student engagement and teacher to student interactions. Any direct test of the themes of this study applied in depth to another sample group could strengthen or lessen the validity of these findings.

Of great importance in any professional development model is its ability to impact student achievement. The results of this study do not conclude that teachers perceived increased student achievement due to Cognitive Coaching. Due to the importance of focus on student achievement, further research might look specifically at examples of Cognitive Coaching that are organized in such a way that the intent will be to directly impact student achievement. Such a study would allow a researcher to test more specifically actual results of change in student achievement rather than just teachers' perceptions of student achievement, as was the case with this study.

When testing specific hypotheses, future opportunities for research could be set up using the scientific method of experimentation with a control group and an experimental group to get direct comparisons between the two groups. An area deserving further research is the area of Cognitive Coaching's impact on student achievement. By

eliminating other staff development programs and practices and measuring student achievement over time between a group receiving Cognitive Coaching and a group not receiving Cognitive Coaching, a statistical analysis can be made to get a true measurement of impact on student achievement between the two groups. Further, a researcher could also compare Cognitive Coaching against other forms of staff development and its impact on student achievement.

This study identified a number of teacher perceptions that were not positive. A study designed to specifically identify shortcomings of the model of Cognitive Coaching would give practitioners data that would allow them to design professional development that fills in gaps that are apparent with Cognitive Coaching. Practitioners may use the positive outcomes as perceived by teachers of this study and make additions to their Cognitive Coaching practices to strengthen its impact on professional development.

The model of Cognitive Coaching can be used and applied to many aspects of professional development. An opportunity for future research might be to study Cognitive Coaching aimed specifically at certain needs to find its effectiveness in each. For example, a study could be done to measure its impact when used directly to support a new initiate, to increase student learning, to improve school culture, to gain insight, or to direct long-term professional goals. Each of these has a unique focus, and the elements of Cognitive Coaching directly applied to any single aim could show its strength or shortcomings when applied to each.

An interesting discovery in the survey data was that often survey participants who chose disagree or strongly disagree for responses did so consistently for all or close to all

survey items. Amongst possible reasons for this is that Cognitive Coaching may not be the best model for different people based on other possible factors such as personality types, natural tendency to reflect, trust in observers, comfortability level in risk taking, lack of belief in the model, or many others unidentified in this research. Future research opportunities might include a study that focuses on why some people benefit from Cognitive Coaching and others do not. Though Cognitive Coaching was positive for many people in this study, it was not for others. The question of what attributes of different people allows them to benefit more or less from Cognitive Coaching would benefit practitioners in recognizing and developing professional development opportunities that are personalized to meet different needs so that all teachers grow continuously to meet the needs of the students.

The findings of this study also present opportunities of broader impact worthy of consideration for research on professional development. What are the big gaps in professional development programs? How should professional development measure and ensure a focus on increased student achievement? What are ways for school districts to improve their staff development programs? How does professional development impact school culture? How do teacher unions affect the progress of staff development? How can staff development be designed and implemented to positively impact the achievement gap? These and other big picture considerations for the constant improvement of teacher professional development are necessary for the persistent evolution of the expertise of teachers to ensure success for all students.

This study revealed several teacher perceptions on the effects of Cognitive Coaching that were confidently tied to the ongoing endeavor for success in their professional development. According to the perceptions of the teachers, it appears that the school district of this study has been successful in providing a practice within their professional development that has proven of benefit for many teachers in a variety of professional practices. The Cognitive Coaching practice within the context of this study has given way to a range of professional practices that teachers believed to be of value in their profession.

References

Alber, S. R., & Nelson, J. S. (2010). Putting research in the collaborative hands of teachers and researchers: An alternative to traditional staff development. *Rural Special Education Quarterly, 29*(4), 24-30.

Alseike, B. U. (1997). *Cognitive coaching: Its influences on teachers*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (304349899).

Awakuni, G. H. (1995). *The impact of cognitive coaching as perceived by the kalani high school core team*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (304278932).

Barnett, E. (2004). Characteristics and perceived effectiveness of staff development practices in selected high schools in South Dakota. *Educational Research Quarterly, 28*(2), 3-18.

Batt, E. G. (2010). Cognitive coaching: A critical phase in professional development to implement sheltered instruction. *Teaching & Teacher Education, 26*(4), 997-1005. doi: 10.1016/j.tate.2009.10.042

Bubb, S., & Earley, P. (2009). Leading staff development for school improvement. *School Leadership & Management, 29*(1), 23-37. doi: 10.1080 /13632430802646370

Charmaz, K. (2010). Constructing grounded theory: A practical guide through qualitative analysis. Thousand Oaks, CA: Sage. (Original work published 2006).

Cochran, B., & DeChesere, J. (1995). Teacher empowerment through cognitive coaching. *Thrust for Educational Leadership, 24*(5), 24.

Costa, A., & Garmston, R. (2002). *Cognitive coaching: A foundation for renaissance schools.* Norwood, MA: Christopher-Gordon Publishers, Inc.

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

Danielson, C., & McGreal, T. (2000). *Teacher evaluation to enhance professional practice*. Alexandria, VA: Association for Supervision and Curriculum Development.

Darling-Hammond, L., & Richardson, N. (2009). Research review / Teachers learning: What matters?. *How Teachers Learn*, 66(5), 46-53.

Day, C. (1999). Professional development and reflective practice: Purposes, processes and partnerships. *Pedagogy, Culture & Society, 7*(2), 221-33.

Dickenson, G., McBride, J., Lamb-Milligan, J., & Nichols, J. (2003). Delivering authentic staff development. *Education, 124*(1), 163-168.

Donhost, M., & Hoover, R. (2007). Creating change staff development. *Leadership, 37*(1), 28-38.

Edwards, J. L., Green, K. E., Lyons, C. A., Rogers, M. S., & Swords, M. E. (1998). The effects of cognitive coaching and nonverbal classroom management on teacher efficacy and perceptions of school culture. *Paper presented at the Annual Meeting of the American Educational Research Association*. San Diego, CA.

Edwards, J. L., & Newton, R. R. (1995). The effects of cognitive coaching on teacher efficacy and empowerment. *Paper presented at the Annual Meeting of the American Educational Research Association*. San Francisco, CA.

Eger, K. A. (2006). *Teachers' perception of the impact of cognitive coaching on their teacher thinking and behaviors*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (305330218).

Engstrom, M. E., & Danielson, L. M. (2006). Teachers' perceptions of an on-site staff development model. *Clearing House, 79*(4), 170-173.

Foster, N. J. (1989). *The impact of cognitive coaching on teachers' thought processes as perceived by cognitively coached teachers in the Plymouth-Canton community school district*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (303795669).

Futernick, K. (2010). Incompetent teachers or dysfunctional systems? Phi Delta Kappan, 92(2). 59-64.

Garmston, R., & Linder, C. (1993). Reflections on cognitive coaching. *Educational Leadership, 51*(2), 57.

Geltner, B. B. (1993). Integrating formative portfolio assessment, reflective practice, and cognitive coaching into preservice preparation. *A paper presented at the Convention of the University Council for Educational Administration*. Houston, TX.

Glaser, B., & Strauss, A. (1999). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New Brunswick: Aldine Transaction. (Original work published 1967)

Glickman, C., Gordon, S., Ross-Gordon, J. (2007). *Supervision and instructional leadership* (7th ed.). Boston, MA: Pearson Education, Inc.

Gordon, S. P., & Brobeck, S. R. (2010). Coaching the mentor: Facilitating reflection and change. *Mentoring & Tutoring: Partnership in Learning, 18*(4), 427-447. doi: 10.1080/13611267.2010.511851

Guskey, T. R. (1985). Staff development and teacher change. *Educational Leadership, 42*(7), 57.

Joyce, B., & Showers, B. (1996). The evolution of peer coaching. *Educational Leadership,* 53(6), 12-16. Retrieved from http://www.ascd.org/publications/educational-leadership/mar96/vol53/num06/The-Evolution-of-Peer-Coaching.aspx

Joyce, B., & Showers, B. (2002). *Student achievement through staff development* (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Kane, R., Sandretto, S., & Heath, C. (2004). An investigation into excellent tertiary teaching: Emphasizing reflective practice. *Higher Education, 47*(3), 283-310.

Killion, J., & Hirsch, S. (2001). Continuous learning: Top-quality professional development is key to teacher effectiveness. *American School Board Journal*. 188(5). 36-38.

Leach, J. (1996). Learning in practice: Support for professional development. In R. Mills, and A. Tait (Eds.), *Supporting the learner in open and distance learning*. (pp.101-126). London, UK: Pitman Publishing. Retrieved from http://www.c3l.uni-oldenburg.de/cde/support/readings/leach96.pdf

Leko, M. M., & Brownell, M. T. (2009). Crafting quality professional development for special educators. *Teaching Exceptional Children, 42*(1), 64-70.

Mackie, D. J. (1998). *Collegial observation: An alternative teacher evaluation strategy using cognitive coaching to promote professional growth and development*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (304483653).

McCarthy, E. H. (2006). When teachers take staff development personally. *Education Digest, 71*(7), 45-49.

McLymont, E. F., & da Costa, J. L. (1998). Cognitive coaching the vehicle for professional development and teacher collaboration. *Paper presented at the Annual Meeting of the American Educational Research Association*. San Diego, CA.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Boss.

Miller de Arechaga, G. (2001). Teacher development: Awareness, reflection and sharing. *The Weekly Column,* Article 69. http://www.eltnewsletter.com/back/August2001/art692001.htm

Perrachione, B. A., Petersen, G. J., & Rosser, V. J. (2008). Why do they stay? Elementary teachers' perceptions of job satisfaction and retention. *Professional Educator, 32*(2), 25-41.

Perry, R. H. (1980). The organizational/environmental variables in staff development. *Theory into Practice, 19*(4), 256.

Sawchuk, S. (2009). Staff development for teachers deemed fragmented. *Education Week, 28*(21), 7-7.

Sanders, W., & Horn, S. (1998). Research findings from the Tennessee Value-Added Assessment System (TVAAS) database: Implication for educational evaluation and research. *Journal of Personnel Evaluation in Education*. 12(3). 247-256.

Schlosser, J. L. (1998). *The impact of cognitive coaching on the thinking processes of elementary school teachers*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (304419232).

Slinger, J. L. (2004). *Cognitive coaching: Impact on students and influence on teachers*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (305206324).

Smith, M. C. (1997). *Self-reflection as a means of increasing teacher efficacy through cognitive coaching*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (304423191).

Sparks, D. (2002). *Designing powerful professional development*. Oxford, OH: National Staff Development Council. Retrieved from http://www.eric.ed.gov/PDFS /ED470239.pdf

Straus, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques* (2nd ed.). Newbury Park, CA: Sage.

Townsend, S. (1995). *Understanding the effects of cognitive coaching on student teachers and cooperating teachers*. (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses. (304185850).

Uzat, S. L. (1998). Cognitive coaching and self-reflection: Looking in the mirror while looking through the window. *Paper presented at the Annual Meeting of the Mid-South Educational Research Association*. New Orleans, LA.

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.

Zembylas, M., & Papanastasiou, E. C. (2005). Modeling teacher empowerment: The role of job satisfaction. *Educational Research & Evaluation, 11*(5), 433-459. doi: 10.1080/13803610500146152

Appendix A

FOCUS GROUP INTERVIEW QUESTIONS

1. In what ways, if any, has Cognitive Coaching affected the way you interact or collaborate with peers, parents, or students?

2. Since Cognitive Coaching, what changes, if any, have you made in the way you prepare, teach, or reflect on instruction?

3. What is your perception of how student achievement has been affected by your Cognitive Coaching sessions?

4. In what ways, if any, has Cognitive Coaching assisted you in making changes in your teaching?

5. Based on your experience, what are the strengths and weaknesses of Cognitive Coaching to assist in professional growth?

Appendix B

INTERVIEW CONSENT FORM

You are invited to participate in a focus group interview for research on the subject of Cognitive Coaching. You have been chosen to participate because you are a teacher in a school district that has participated in the Alternative Teacher Professional Pay System utilizing Cognitive Coaching for the past four years. The interview is being conducted by Kevin Bjerken to satisfy the requirement for dissertation research for the degree of Educational Doctorate. Please read this form before agreeing to be interviewed.

Purpose
The purpose of the study is to collect data from practicing classroom teachers about their views and perceptions of the effects of Cognitive Coaching.

Procedures
A focus group interview asking for reflections about how Cognitive Coaching has affected professional practices will be conducted and recorded. Focus group interviews will be a maximum of one hour. There will be five to eight participants in each focus group. Focus group interviews will take place in a private conference area at each school site. The recording will be transcribed and coded to identify teacher's perceptions of changes in professional practices after having been a recipient of cognitive coaching for the past four years.

Risks and Benefits
Questions asked are focused on the effects of Cognitive Coaching. Information will be used in research and published as a part of a dissertation. The risks for participation are minimal and no more than are experienced in daily life. There are no direct benefits to participating other than helping to add to what is known about the impact of cognitive coaching.

Confidentiality and Security
The specific identifiers of this interview will be kept private. The signed consent forms of interviewees will remain confidential and will be stored for a period of three years in a locked cabinet held by Candace Raskin (dissertation advisor) in the offices of Minnesota State University, Mankato. The interviewee will be referred to as *Participant A*, etc. in any document published.

Initials indicating page read_____

Voluntary nature of interview
Participation in this research is strictly voluntary. Participation or nonparticipation will not impact your relationship with Minnesota State University, Mankato or your school district. Even if you sign the consent form, you are free to stop doing the interview at any time. You do not need to complete the interview if you feel uncomfortable doing so.

Contact
The researcher conducting this interview is Kevin Bjerken. If you have any questions or concerns regarding the treatment of the data collected through this interview or about the research, please contact Kevin Bjerken at kevin.bjerken@mnsu.edu (612-978-3120) or Dr. Candace Raskin (dissertation advisor) at Candace.raskin@mnsu.edu (952-818-8886). If you have questions about the treatment of human subjects, contact the IRB Administrator at 507-389-2321.

I have read the above information and understand that this interview is voluntary and I may stop at any time. I consent to participate in the interview.

_____
Signature of participant

_____
Date

_____
Signature of researchers

_____
Date

☐ Participant received a copy.

Appendix C

SURVEY QUESTIONS

1. Cognitive coaching has helped me reflect more deeply and clearly about my professional practices.

2. Since participating in cognitive coaching, I have an increased awareness of student engagement and participation during classroom instruction.

3. Self-reflection that creates new learning from cognitive coaching sessions transfers into my subsequent professional practices.

4. I believe cognitive coaching has increased student learning for immediate, short-term measures such as a single lesson or unit.

5. Since cognitive coaching, I use more reflective questioning with my students in order to help them reflect on their own progress.

6. After four years of cognitive coaching, I am better able to identify specific student achievement levels.

7. Cognitive coaching has made me focus more on specific students or student groups during planning.

8. Since participating in cognitive coaching, I am more aware of identifying students' learning and achievement during a single instructional lesson.

9. I plan for lessons more carefully when I know I am going to be observed by my cognitive coach.

10. More specific feedback and improvement ideas from my cognitive coach would better assist in my professional development.

11. After four years of cognitive coaching, I am better able to measure student achievement.

12. I would experience more professional growth if my cognitive coach were experienced with my student grade level.

13. Cognitive coaching helps me see the positives or successes in my lessons rather than just negatives.

14. Since participating in cognitive coaching, I have an increased awareness of how I interact with students during instruction.

15. Cognitive coaching has made me focus more on specific students or student groups during instructional delivery.

16. I believe cognitive coaching has increased overall student achievement for the students I serve.

17. Cognitive coaching is important for me to make social and/or professional connections with others.

18. Since participating in cognitive coaching, I am more particular with my lesson planning on a regular basis.

19. I would experience more professional growth if my cognitive coach were an expert in my content area.

Appendix D

INTRODUCTION

You are invited to participate in a brief survey for research on the subject of Cognitive Coaching. You have been chosen to participate because you are a teacher in a school district that has participated in the Alternative Teacher Professional Pay System utilizing Cognitive Coaching for the past four years. The survey is being conducted by Kevin Bjerken to satisfy the requirement for dissertation research for the degree of Educational Doctorate. Your participation is voluntary, and your input is highly valued in our data collection process. The survey can be completed in three to five minutes, and all participants are completely anonymous. Again, we appreciate you willingness to share your expertise.

ONLINE/ANONYMOUS SURVEY CONSENT

You are requested to participate in research conducted by Kevin Bjerken on Cognitive Coaching. This survey should take approximately 3 to 5 minutes to complete. The goal of this survey is to understand what teachers perceive as effects of Cognitive Coaching on professional practice, and you will be asked questions on that topic. If you have questions about the research, please contact Kevin Bjerken at kevin.bjerken@mnsu.edu or Dr. Candace Raskin (dissertation advisor) at Candace.raskin@mnsu.edu.

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time by closing your web browser. Participation or nonparticipation will not impact your relationship with Minnesota State University, Mankato or your school district. If you have questions about the treatment of human participants and Minnesota State University, Mankato, contact the IRB Administrator, Dr. Barry Ries, at 507-389-2321 or barry.ries@mnsu.edu.

Responses will be anonymous. However, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

The risks of participating are no more than are experienced in daily life.

There are no direct benefits to participating other than helping to add to what is known about the impact of cognitive coaching.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age.

Please print a copy of this page for your future reference.

MSU IRBNet ID# 383087-4

Date of MSU IRB approval: 1/18/2013

Table 1
Cognitive Coaching Survey Results

Themes (in order as presented in findings)	Ratio of Responses Agree:Disagree	Supported	Not Supported
Increase in reflective practice	6.92:1	x	
Use more reflective questioning with students	1:1.3		x
Important for social interaction	1.92:1	x	
Shift from criticism of lesson to seeing positives	21.25:1	x	
New learning transfers to professional practices	10.74:1	x	
Specific feedback needed from coach	2.61:1	x	
Content expertise needed by coach	2.28:1	x	
Grade level experience needed by coach	2.07:1	x	
More careful planning for observation	2.36:1	x	
More careful planning in general	1:1.06		x
Increase focus on specific students when planning	2.29:1	x	
Increased focus on specific students during instruction	1.39:1		x
Increased Ability to Identify Student Achievement	1.27:1		x
Increased ability to measure achievement	1.42:1		x
Increased Student achievement Short Term	3:1	x	
Increased Student achievement Long Term	1.37:1		x
Increased awareness of student engagement	3.53:1	x	
Increased awareness of interactions with students	2.82:1	x	
Increased awareness of student learning during lesson	2.12:1	x	

Figures

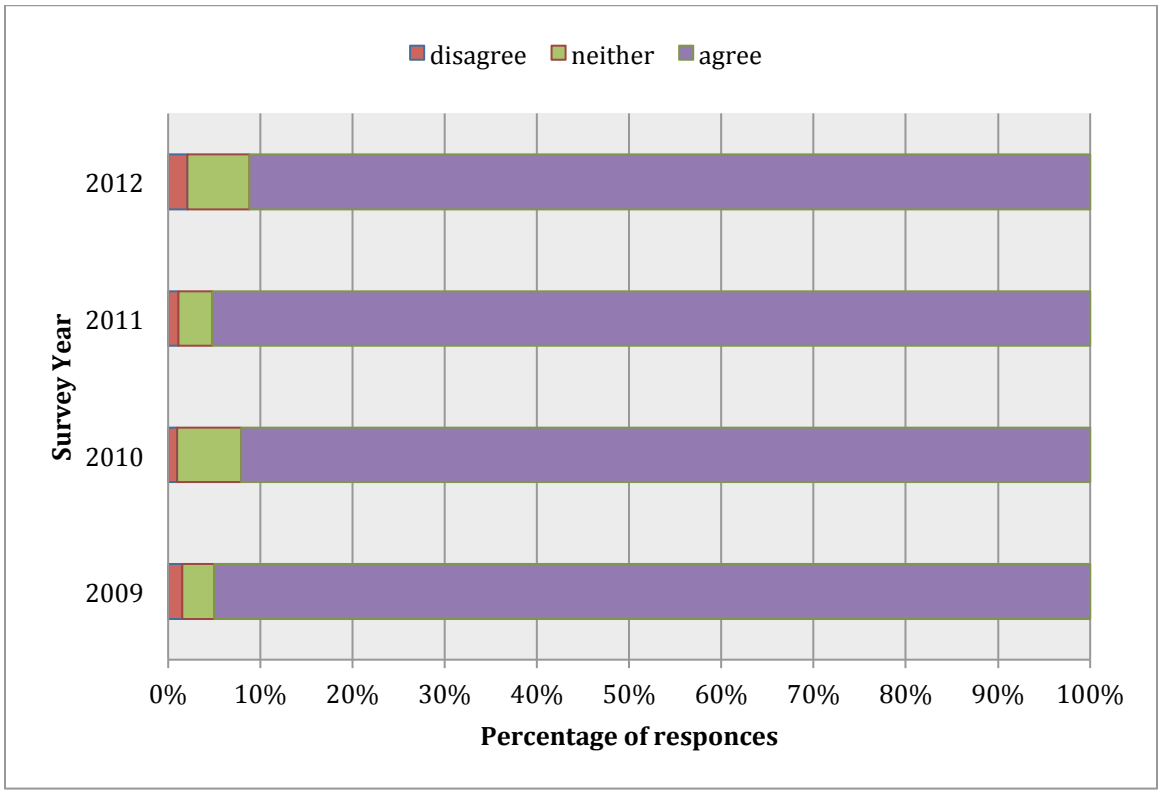


Figure 1. Survey results for question six of the district survey given to staff each of four years as a measurement of portions of the Alternative Teacher Professional Pay System. The statement for this response data was: My instructional coach helps me reflect about my work and supports my growth as a professional.

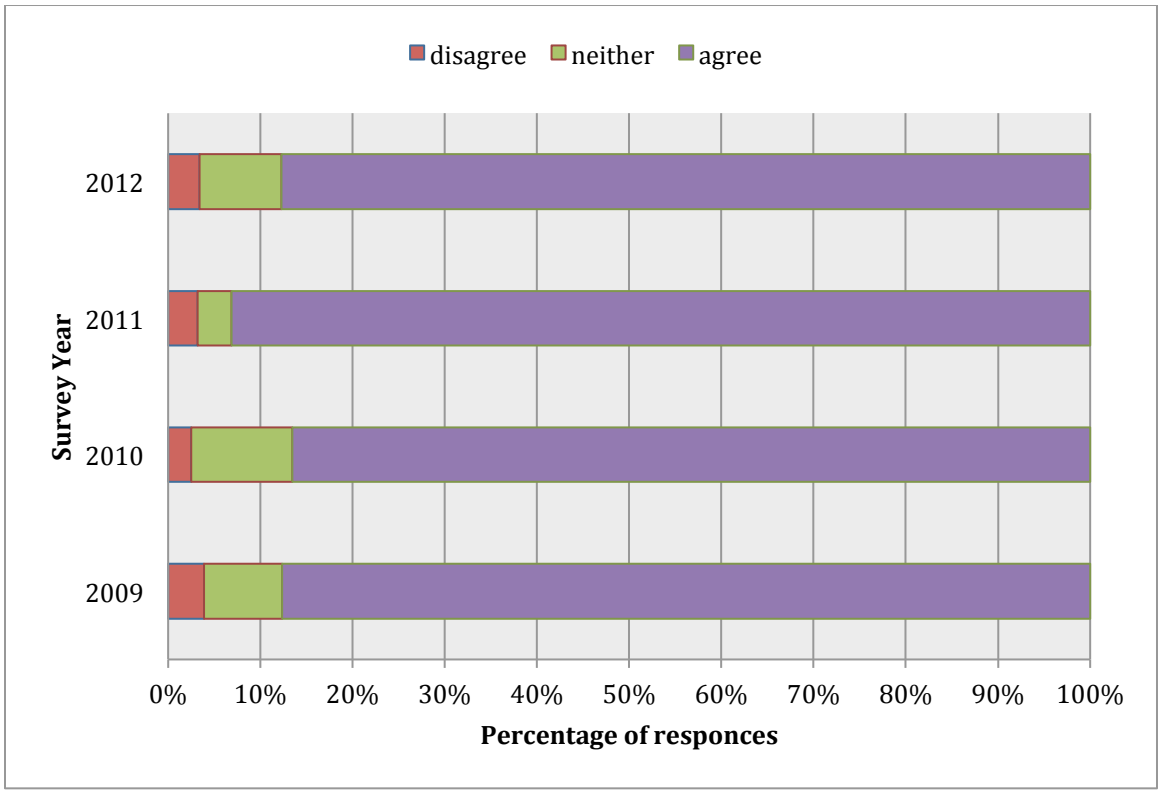
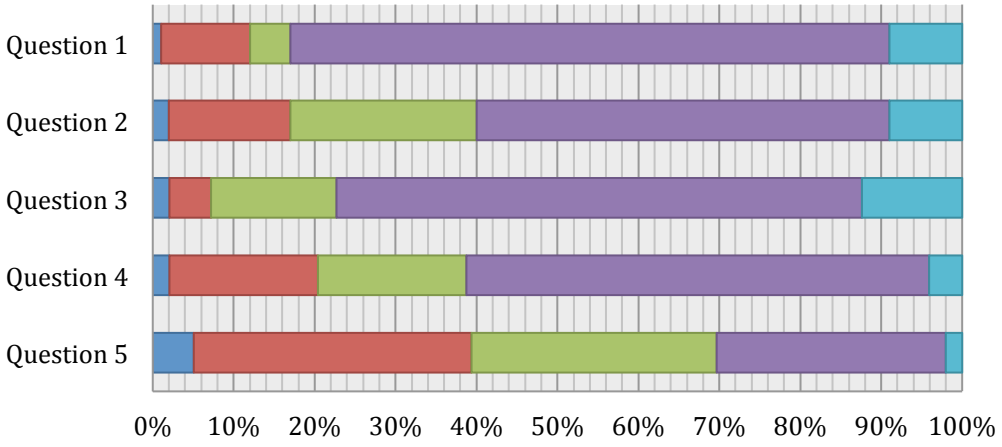


Figure 2. Survey results for question six of the district survey given to staff each of four years as a measurement of portions of the Alternative Teacher Professional Pay System. The statement for this response data was: I understand the coaching model my instructional coach is using.



	Question 5	Question 4	Question 3	Question 2	Question 1
Strongly Disagree	5	2	2	2	1
Disagree	34	18	5	15	11
No Opinion	30	18	15	23	5
Agree	28	56	63	51	74
Strongly Agree	2	4	12	9	9

Figure 3. Survey results for questions 1-5 of the Cognitive Coaching survey sent to all staff of the sample group. Questions 1-5 were as follows:

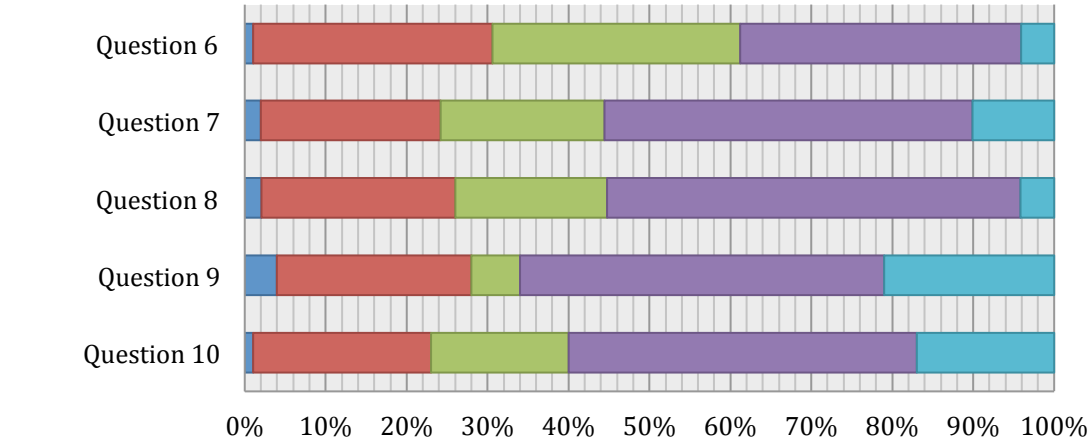
1. Cognitive coaching has helped me reflect more deeply and clearly about my professional practices.

2. Since participating in cognitive coaching, I have an increased awareness of student engagement and participation during classroom instruction.

3. Self-reflection that creates new learning from cognitive coaching sessions transfers into my subsequent professional practices.

4. I believe cognitive coaching has increased student learning for immediate, short-term measures such as a single lesson or unit.

5. Since cognitive coaching, I use more reflective questioning with my students in order to help them reflect on their own progress.



	Question 10	Question 9	Question 8	Question 7	Question 6
Strongly Disagree	1	4	2	2	1
Disagree	22	24	23	22	29
No Opinion	17	6	18	20	30
Agree	43	45	49	45	34
Strongly Agree	17	21	4	10	4

Figure 4. Survey results for questions 6-10 of the Cognitive Coaching survey sent to all staff of the sample group. Questions 6-10 were as follows:

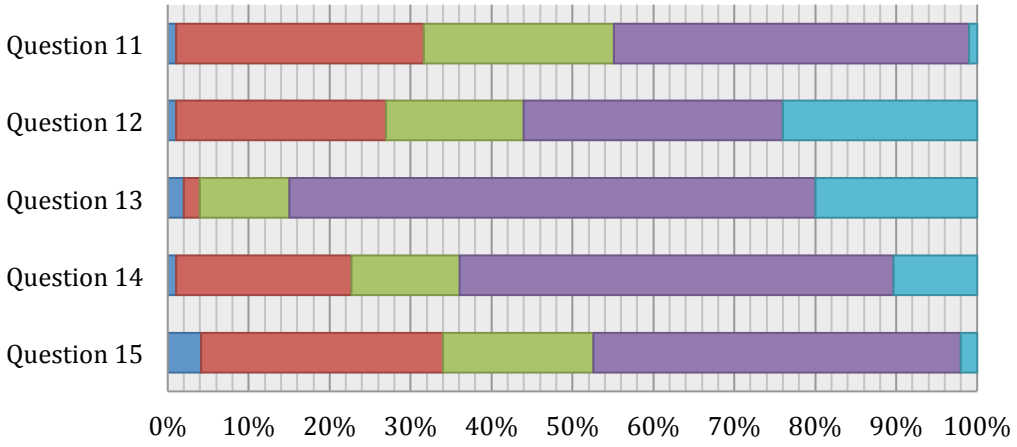
6. After four years of cognitive coaching, I am better able to identify specific student achievement levels.

7. Cognitive coaching has made me focus more on specific students or student groups during planning.

8. Since participating in cognitive coaching, I am more aware of identifying students' learning and achievement during a single instructional lesson.

9. I plan for lessons more carefully when I know I am going to be observed by my cognitive coach.

10. More specific feedback and improvement ideas from my cognitive coach would better assist in my professional development.



	Question 15	Question 14	Question 13	Question 12	Question 11
Strongly Disagree	4	1	2	1	1
Disagree	29	21	2	26	30
No Opinion	18	13	11	17	23
Agree	44	52	65	32	43
Strongly Agree	2	10	20	24	1

Figure 5. Survey results for questions 11-15 of the Cognitive Coaching survey sent to all staff of the sample group. Questions 11-5 were as follows:

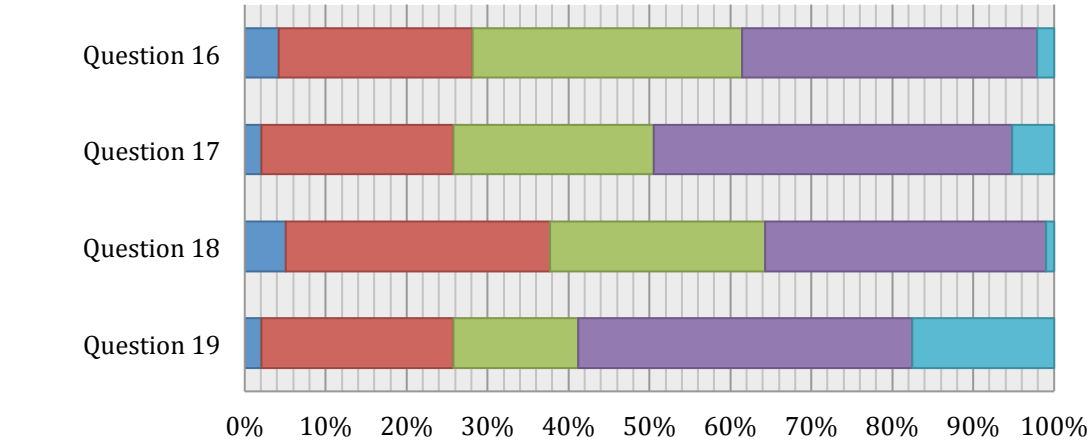
11. After four years of cognitive coaching, I am better able to measure student achievement.

12. I would experience more professional growth if my cognitive coach were experienced with my student grade level.

13. Cognitive coaching helps me see the positives or successes in my lessons rather than just negatives.

14. Since participating in cognitive coaching, I have an increased awareness of how I interact with students during instruction.

15. Cognitive coaching has made me focus more on specific students or student groups during instructional delivery.



	Question 19	Question 18	Question 17	Question 16
Strongly Disagree	2	5	2	4
Disagree	23	32	23	23
No Opinion	15	26	24	32
Agree	40	34	43	35
Strongly Agree	17	1	5	2

Figure 6. Survey results for questions 16-19 of the Cognitive Coaching survey sent to all staff of the sample group. Questions 16-19 were as follows:

16. I believe cognitive coaching has increased overall student achievement for the students I serve.

17. Cognitive coaching is important for me to make social and/or professional connections with others.

18. Since participating in cognitive coaching, I am more particular with my lesson planning on a regular basis.

19. I would experience more professional growth if my cognitive coach were an expert in my content area.