

PERCEPTIONS OF ELEMENTARY SCHOOL TEACHER PARTICIPATION  
IN PEER COACHING, REFLECTIVE PRACTICES, AND  
THE EFFECTS ON STUDENT LEARNING

by

BRADLEY A. SCOTT

DAISY ARREDONDO RUCINSKI, COMMITTEE CHAIR

DAVID DAGLEY

ROXANNE MITCHELL

JOHN TARTER

SARA TOMEK

A DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Education  
in the Department of Educational Leadership,  
Policy, and Technology Studies  
in the Graduate School of  
The University of Alabama.

TUSCALOOSA, ALABAMA

2015

Copyright Bradley Alton Scott 2015  
ALL RIGHTS RESERVED

## ABSTRACT

As the expectations for student achievement continues to increase at the national, state, and local levels, the pressure specifically increases for classroom teachers to reflect and improve their instructional practices. The purpose of this study was to examine how peer coaching may promote and encourage metacognition and reflective practice, as a way to improve classroom instruction, and perhaps have a positive influence on student achievement (Bandura, 1994).

The study identified elementary school teachers in Grades Pre-Kindergarten through Grade Six in public elementary schools in north Alabama that were participating in a peer coaching model called the Instructional Partnership Pilot (IPP) and assessed their levels of reflection (Gassenheimer, 2012, 2013). The teacher reflection levels were studied in two matched groups: one group of six elementary schools that had participated in a peer coaching model for either one, two, or three years and the other group was comprised of six elementary schools that had not participated in a formal peer coaching model. The study attempted to answer the following research questions: (1) Are there differences in the professional reflections of teachers involved in a peer coaching model as compared to the reflections of those teachers not involved in a peer coaching model? (2) Are there differences in the professional reflections of teachers involved in a peer coaching model such as the Instructional Partnership Pilot for one, two, or three years?

The Reflective, Ethical, Moral Assessment Survey (REMAS, Arredondo Rucinski & Baugh, 2006) was used to assess the teacher perceptions. The data were then compared using a *t*-test and a multivariate analysis of variance (MANOVA). The results did not reveal a significant

difference between the reflective perceptions of those that had and those that had not participated in peer coaching. However, it was determined that the teacher perceptions were statistically significantly different when comparing the number of years in the peer coaching model, more specifically with an implementation dip in year two and highest scores in year three.

## DEDICATION

I would like to dedicate my dissertation work to my family and friends that have encouraged and supported me along the way. Amy, I appreciate you making my dreams your dreams as well as for the countless hours caring for our children while I read and studied. Mom and Dad, thank you for always believing in me, encouraging me to chase my dreams, and providing me a strong Christian example to emulate. My two sons, Aubrey and Landon, I appreciate your patience and understanding while I worked on my dissertation study. My hope is that you also may be motivated and encouraged to chase your dreams and believe that you can do anything through Christ.

## ACKNOWLEDGMENTS

I would never have been able to complete my dissertation without the guidance of my committee members, help from friends, and support from my family.

I would like to express my deepest appreciation to my committee chair, Dr. Daisy Arredondo Rucinski, for her high expectations, guidance, and encouragement. She continually conveyed a spirit of excitement with regard to teaching, learning, and the importance of school leaders also serving as instructional leaders. Her guidance has made me a more reflective educator and administrator.

I would also like to thank my committee members, Dr. David Dagley, Dr. Roxanne Mitchell, Dr. John Tarter, and Dr. Sara Tomek for guiding my research. Special thanks to Lauren Holmes and the University of Alabama Research Assistance Center for helping me continue my study of statistics, methodologies, and quantitative studies related to my dissertation study.

I would also like to thank all of the wonderful teachers that I have had the privilege to learn from over the years as both a student and colleague. It is through our individual and collective expertise and experience that we can positively impact the lives of students.

## CONTENTS

|                                |    |
|--------------------------------|----|
| ABSTRACT .....                 | ii |
| DEDICATION .....               | iv |
| ACKNOWLEDGMENTS .....          | v  |
| LIST OF TABLES .....           | x  |
| INTRODUCTION .....             | 1  |
| Statement of the Problem ..... | 1  |
| Purpose .....                  | 2  |
| Significance of the Study..... | 3  |
| Research Methods.....          | 4  |
| Research Questions.....        | 4  |
| Hypotheses.....                | 5  |
| Theoretical Framework.....     | 5  |
| Definition of Concepts.....    | 6  |
| Overview of the Study.....     | 8  |
| Scope .....                    | 9  |
| Limitations.....               | 9  |
| Assumptions .....              | 9  |

|   |    |
|---|----|
| Summary.....                                      | 10 |
| REVIEW OF LITERATURE .....                        | 11 |
| Introduction .....                                | 11 |
| Conceptual Framework.....                         | 11 |
| Professional Development.....                     | 12 |
| Coaching.....                                     | 14 |
| Peer Coaching .....                               | 16 |
| Reflection .....                                  | 30 |
| Summary.....                                      | 41 |
| METHODOLOGY .....                                 | 42 |
| Research Design .....                             | 42 |
| Population and Selective, Convenience Sample..... | 45 |
| Survey Sample Size.....                           | 48 |
| Instrumentation.....                              | 49 |
| Validity and Reliability .....                    | 49 |
| Data Collection .....                             | 50 |
| Data Analysis.....                                | 52 |
| Variables .....                                   | 53 |
| Ethics .....                                      | 54 |
| Summary.....                                      | 55 |
| RESULTS .....                                     | 56 |

|  |            |
|--|------------|
| Participants .....   | 57         |
| Statistical Analysis .....   | 62         |
| Results .....  | 63         |
| Summary of Survey Results .....  | 72         |
| Summary.....   | 72         |
| <b>DISCUSSIONS AND CONCLUSIONS .....</b>   | <b>74</b>  |
| Purpose of the Study.....  | 75         |
| Statement of the Problem .....   | 75         |
| Summary of Methods .....   | 76         |
| Summary of the Findings .....  | 77         |
| Study Limitations and Delimitations.....   | 84         |
| Implications for Educators.....  | 85         |
| Suggestions for Additional Research .....  | 89         |
| Conclusions .....  | 90         |
| <b>REFERENCES .....</b>  | <b>92</b>  |
| <b>APPENDIX A - SUPERINTENDENT CONSENT LETTER .....</b>  | <b>101</b> |
| <b>APPENDIX B - PRINCIPAL INFORMATION LETTER .....</b>   | <b>103</b> |
| <b>APPENDIX C - PARTICIPANT INFORMED CONSENT LETTER.....</b>   | <b>105</b> |
| <b>APPENDIX D - PERMISSION TO USE THE REFLECTIVE, ETHICAL AND MORAL<br/>ASSESSMENT SURVEY CREATED BY DR. DAISY ARREDONDO RUCINSKI AND DR.<br/>PATRICIA BAUCH .....</b> | <b>107</b> |

APPENDIX E - REFLECTIVE, ETHICAL, AND MORAL ASSESSMENT SURVEY WITH  
REVISED DEMOGRAPHIC INFORMATION ..... 109

APPENDIX F - SCREE PLOT ..... 112

LIST OF TABLES

1. Characteristics of Participating Schools .....48

2. Summary of Alabama District 8 Schools Surveyed and Percentage of Return.....58

3. Summary of Participant Demographic Data .....61

4. Factors, Items, Internal Consistency, and Descriptive Statistics for Variable Scales (N = 249) .....66

5. Inter-correlations between the Four Subscales: ETHMORDM, REFLDMS, DEFENBEH, and ETHPRIOR .....70

## INTRODUCTION

Proponents have argued that peer coaching is an approach for successfully improving student achievement (Bowman & McCormick, 2000; Foltos, 2013a; Joyce & Showers, 2002). This peer influence has been used to develop effective classroom teachers through the acquisition and development of skills needed at each grade level in the K-12 setting (Gassenheimer, 2013; Gottesman, 2000; Joyce & Showers, 2002; Murray, Ma, & Mazur, 2009; Supovitz, Sirinides, & May, 2010). For example, Public Law 107-110, more commonly known as *No Child Left Behind Act* (2001), emphasized the importance of providing highly qualified teachers for all students as it connects federal and state funding to pre-determined academic criteria. Considerable debate continues about the best means for developing teachers' instructional practices. In this study, the hypothesis that as structured interactions and dialogue about teaching are encouraged and practiced, there will be: (1) an increase in teachers' reflective judgment, (2) increased trust among the participants, and (3) increased teaching skills.

### Statement of the Problem

According to Ingersoll and Smith (2004), during the last twenty-five years there has been an increasing interest in the amount of support, guidance, and orientation programs for beginning teachers. These programs are often referred to as induction programs and they frequently include mentoring or peer coaching. Ingersoll and Smith stated that historically the teaching profession "cannibalizes its young" as new teachers usually practice in isolation from their teaching peers and are often assigned the most difficult students. This situation is frequently described as a "sink or swim, trial by fire, or boot camp experience" (Ingersoll & Smith, 2004, p. 28). Some

literature asserts that as many as 50% of new teachers leave the profession within the first five years (Ingersoll & Smith, 2004; Joyce & Showers, 2002). Increasingly, school administrators are offering additional support to new teachers through induction programs to serve as a bridge from being a student of teaching to a teacher of students (Ingersoll & Smith, 2004). This applies Vygotsky's theoretical framework of Social Cognitive Development which includes four stages within a zone of proximal development. These four stages include the use of dialogue, scaffolding on experience, individual assessment/observation, and basic premises of coaching (Vygotsky, 1978).

Recent literature and interest in targeting professional development, reflective practice, and collaboration has supported the need to offer a variety of induction and support programs for both novice and seasoned elementary classroom teachers; most specifically, through consistent collaborative planning time with structured interaction and dialogue (Arredondo & Rucinski, 1998; Gassenheimer, 2013; Ingersoll & Smith, 2004; Joyce & Showers, 2002; Knight, 2007, 2011; Poovey, 2012). This study examines the hypothesized relationship between teacher participation in a peer coaching model and the levels of reflection of professional teachers, including increases in reflective judgment, trust among participants, and teaching skills.

#### Purpose

The purpose of this study was to examine how peer coaching may promote and encourage metacognition and reflective practice, as a way to improve classroom instruction, and perhaps have a positive influence on student achievement (Bandura, 1994). Furthermore, the study built on previous research focusing on professional learning communities (Poovey, 2012)

by attempting to identify and measure the relationship between peer coaching and the teachers' reflections while participating in peer coaching. The study identified elementary school teachers in Grades Pre-Kindergarten through Grade Six in public elementary schools that were participating in the Instructional Partnership Pilot, in north Alabama (Gassenheimer, 2013) and assess their levels of reflection.

New teachers entering the teaching profession and experienced teachers beginning their careers at a new school are usually assigned a peer coach or mentor to assist with the transition, to accelerate the acclimation to the academic guidelines and expectations of the school and community environment, and to build rapport with the existing faculty or staff. This research used an in-depth reflective, emotional, and moral assessment of the participants with a focus on how peer coaching affects the participants and their teaching. The study measured the cognitive change of the mentors and mentees in relation to the peer coaching process.

#### Significance of the Study

As administrators and teachers strive to meet the growing demands of the accountability levels of standardized testing, it has grown increasingly important to strategically monitor and implement strategies that lead to professional development and improved instructional practices. The use of peer coaching with both novice and seasoned teachers may provide an opportunity to build rapport among a faculty while simultaneously shifting from good to better instructional practices through structured interaction, dialogue, and collaboration. In Alabama, the Instructional Partnership Pilot includes a peer coaching component that is being used to assess the experience and knowledge of classroom teachers to monitor, challenge, and evaluate current

instructional practices (Gassenheimer, 2013; Knight, 2011c). It is hoped the information from this study may assist teachers and administrators in planning and creating more reflective peer interaction, and lead to improved teaching and thus better student learning.

### Research Methods

The primary purpose of this study was to identify, examine, and measure a potential relationship between peer coaching, elementary teachers' reflections, and elementary teachers' perceptions of the effects of a peer coaching model called the Instructional Partnership Pilot on student learning. This research used a mixed methods approach. The quantitative approach allowed the researcher to examine the differences in and between groups surveyed by using a *t*-test and a multiple analysis of variance (MANOVA). The Reflective, Ethical and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) was used to survey Grades Pre-Kindergarten through Grade Six public elementary school teachers in Regional District 8 as defined by the Alabama State Board of Education. Demographic information was added to the survey. A qualitative approach was added with two questions targeting teacher perceptions of the effects of the Instructional Partnership Pilot on student learning.

### Research Questions

The purpose of this study was to examine any changes in teachers' levels of thinking and ultimately on student learning as they participate in the Instructional Partnership Pilot. The study identified elementary school teachers in Grades Pre-Kindergarten through Grade Six in public elementary schools located in District 8 in north Alabama, that are participating in the Instructional Partnership Pilot. The research questions for the study are:

1. Are there differences in the professional reflections of teachers involved in a peer coaching model as compared to the reflections of those teachers not involved in a peer coaching model?
2. Are there differences in the professional reflections of teachers involved in a peer coaching model such as the Instructional Partnership Pilot for one, two, or three years?

### Hypotheses

H<sub>1</sub>: Respondents from elementary schools in north Alabama will demonstrate a significant relationship between peer coaching and teacher reflection.

H<sub>2</sub>: Respondents from elementary schools in Alabama participating in the Instructional Partnership Pilot will demonstrate a significant relationship between peer coaching and teacher reflection, regardless of the number of years of their involvement in the Instructional Partnership Pilot.

### Theoretical Framework

This research study was based on the theory that teachers who participated in peer coaching engaged in more in-depth collaboration and reflection than teacher colleagues who do not participate in peer coaching, and that through these interactions, collaboration, and dialogue encountered in the peer coaching, teachers were exposed to a variety of ways to improve and enhance their professional reasoning, their level and complexity of their reflection, and their instructional practices. This was similar to an Instructional Coaching method which can be perceived as a pyramid approach with three levels. Level one consists of the coach or mentor

teacher building trust, classroom observations followed by dialogue, and the development of professional learning in the local school setting. The second level of this framework places an importance of the teachers supporting each other as they attempt new instructional strategies and activities in the classroom setting. The third level involves the coaches or mentors continuing their own professional learning which will develop teacher leaders among the faculty. In summary, the goal was to build teacher capacity as they determine and use best instructional practices in their classrooms to improve student achievement (Knight, 2007, 2011c; Smith, 2008).

The use of peer coaching was designed to establish a context in which neither teacher was viewed as being an expert over the other teacher. Instead, researchers established a peer-coaching model that focused on learning from one another in a fashion similar to Wenger's "community of practice" (1998). This concept featured mutual engagement as well as constant renegotiation of meanings and practices. Professional development was used as the teachers had open discussions structured for self-disclosure, feedback requests, and mutual monitoring which sets the tone for the clarification, elaboration, and reflection on instructional practices (Murray, Ma, & Mazur, 2009).

#### Definition of Concepts

**Professional Development:** A systematic effort or process defined as ongoing, research based, job embedded training that challenges, develops, transforms and promotes the development of teachers' classroom instructional practices and/or pedagogical beliefs as well as

the development and implementation of best instructional practices (Foltos, 2013b; *No Child Left Behind Act*, 2001).

**Coaching:** A construct defined as engagements by pairs or groups of teachers in structured discussion, collaboration, and reflection (Nolan & Hillkirk, 1991), which in some instances includes observation and feedback (Joyce & Showers, 2002).

**Peer Coaching:** A simple, nonthreatening process in which two or more colleagues or teams of teachers regularly work together to reflect and improve instructional practices; increase, refine, and build new instructional skills; share ideas; edify one another; perform classroom research; or solve problems of practice in the workplace (Arredondo & Rucinski, 1994, 1998; Gottesman, 2001; Joyce & Showers, 2002; Knight, 2011c; Robbins, 1991; Valencia & Killion, 1988).

**Instructional Partnership Pilot:** A professional development model formed and implemented in the State of Alabama to address the need to prepare schools and faculties for the implementation of the College and Career-Ready Standards (CCRS) by using teachers in coaching roles and working with their colleagues as partners rather than "experts" (Gassenheimer, 2012, 2013).

**Professional Learning Community:** "Schools in which interaction among teachers is frequent and teachers' actions are governed by shared norms focused on the practice and improvement of teaching and learning" (Bryk, Camburn, & Louis, 1999, p. 753).

**Metacognition:** An awareness of or thinking about one's own thinking (Baer, Smith, & Allen, 2004).

Reflection: “Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends” (Dewey, 1933, p. 6).

Reflective Practice: A way of examining and learning from our actions, decisions, and experiences while attaining a better understanding about any knowledge or instructional practices as well as developing new professional skills, knowledge, and instructional practices (Argyris & Schön, 1974; Arredondo Rucinski, 2005; Schön, 1984, 1987).

Espoused Theories: Ideas or theories that we often use to explain what we believe (Argyris & Schön, 1974; Arredondo Rucinski, 2005; Schön, 1984, 1987).

Theories-in-use: The ideas or theories that drive our behavior and practices on a daily basis (Argyris & Schön, 1978; Arredondo Rucinski, 2005; Schön, 1984, 1987).

### Overview of the Study

The study was organized into five chapters. Chapter one included an introduction to the research study, a statement of the problem, purpose of the study, research questions, hypothesis, methodology, definitions of concepts and terms, and significance for studying the perspectives of an elementary teacher involved in a peer coaching model such as the Instructional Partnership Pilot. Chapter two included a review of the literature relevant to professional development, peer coaching, types of peer coaching, and reflection and related terms. Chapter three included a detailed description of the methodology to be used in the study, including procedures for data collection and analysis. Chapter four included a summary of the methodology used in the study, the data collected, analysis of the data, and the results of the study. Chapter five included a summary of the results, and

the conclusions and implications related to future research of elementary school teachers participating in peer coaching models such as the Instructional Partnership Pilot.

### Scope

The scope of this study included a selective, convenience sample of six north Alabama public elementary schools that participate in the Instructional Partnership Pilot program, and are located in District 8 as defined by the state of Alabama Board of Education. In addition, six comparable north Alabama public elementary schools were included from District 8 with similar demographic characteristics. Elementary schools are defined as those that consist of grades Pre-K through grade 6.

### Limitations

Because the population of the study was focused on elementary schools of north Alabama, and the sample was a selective, convenience sample, results will not be generalized to other states or school levels. In addition, although a range of schools were used, results may not be generalized to schools that do not fall within those configurations.

### Assumptions

1. The Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) served as an accurate research instrument to measure the perceived levels of reflection by the elementary teachers.

2. The elementary teachers who completed the survey teach in a public elementary school, consisting of grades pre-K-6 in District 8 in Alabama during the 2013-2014 school year.

3. The elementary teachers responding to the survey completed the survey in an honest, professional manner.

4. The selective, convenience sample may be generalized to the participating schools.

### Summary

This chapter provided an introduction to peer coaching and the reflective practice requisite to foster a productive, professional, and collaborative environment in schools. Dewey (1933) said, “The person who really thinks learns quite as much from his failures as from his successes” (p. 54). This sentiment set the stage that teachers must reflect and learn from his or her professional decisions and actions in order to improve instructional practices and student learning. Therefore, the experimental learning cycle, presented by Arredondo Rucinski (2005) and adapted from Dewey (1916), was a useful tool for group reflection and transforming teacher practice. Furthermore, Starnes, Paris, and Stevens (1999) suggested that establishing and sustaining a reflective environment increases the potential for the transfer of information and assists teachers with experiencing in-depth, ongoing, and authentic evaluation of instructional practices (Poovey, 2012). These opportunities for reflective practice could occur in a variety of ways, including individually and collectively.

## REVIEW OF LITERATURE

### Introduction

Peer coaching and reflective practice are both concepts that researchers have associated with the development of leadership, achievement, collaboration, and the professional culture of schools (Foltos, 2013; Joyce & Showers, 2002). One such example has been the Instructional Partnership Pilot currently in use in selected schools throughout Alabama. Because of the possible impact of both constructs on instructional practices in public schools, there is a need for additional studies that examine possible connections between them that may exist.

### Conceptual Framework

The profession of teaching is more challenging than ever before. The increasing diversity of the student population presents a range of new situations for teachers and administrators. While the experiences of educators may differ, their students' cultural and socioeconomic backgrounds continue to create challenges, obstacles, and opportunities. For example, a single class may consist of students from a variety of countries, native languages, academic levels, and children with multiple exceptionalities or special needs. As a result, during the last two decades, educators have noticed that many of the instructional practices and skills developed and implemented in the past are no longer the best approaches for meeting the needs of their students (Foltos, 2013; Swafford, 1998). According to some researchers, the role of classroom teachers has shifted from a knowledge provider to a facilitator who guides and supports learning (Oolbakkink-Marchand, 2006; van Eekelen, Boshuizen, & Vermunt, 2005). Gallimore and Tharp (1990) suggested that this shift has increased from an isolated professional one in which the

professional development opportunities for teachers to work and collaborate with each other in a reflective manner has decreased.

### *Professional Development*

The professional development of teachers has more recently been described as a systematic process for ongoing, research based, job-embedded training that challenges, transforms, and encourages the development and implementation of classroom instructional practices and pedagogical beliefs (Foltos, 2013; *No Child Left Behind Act*, 2001) However, as early as the 1970s, studies of professional development targeting instructional practices and curriculum suggested that as few as 10% of participating teachers implemented concepts learned in traditional professional development or in-service opportunities such as workshops. In a similar manner, Joyce and Showers (1996, 2002) claimed the rate of transfer to daily practices and implementation from these isolated trainings was accompanied by a minimal impact on student learning. They suggested that teachers often lack the requisite skill set and background knowledge for applying what they learn in trainings. In addition, their study documented a lack of support and feedback when teachers did attempt to develop and implement new learning strategies (Garet, Porter, Desimone, Birman, & Yoon, 2001; Joyce & Showers, 1996, 2002; Rodriguez & Knuth, 2000; Foltos, 2013).

Murray, Ma, and Mazur (2009) characterized professional development as the progression of improving professionally related skills and competencies required for generating desirable educational outcomes for student populations both individually and collectively. While the educational community seems to agree that professional development plays a requisite role, there

is no universal agreement for which method(s) of professional development best benefits classroom instruction. However, there is a consensus that the influence of peers on each other can play a positive role in the professional development of all educators (Supovitz, Sirinides, & May, 2010).

Paquette's study (1987) of effective schools and professional development in Calgary, Alberta, Canada established five fundamental principles for professional growth and development. One, teachers benefit from individual, small group, and large group professional development activities. However, a single type of grouping or presentation style exhibits the potential to stifle growth. Two, voluntary participation or opportunities for input by the school faculty provides an environment in which teachers are more receptive. Three, the professional development activities should be relevant as well as build on the strengths, interests, and skills of the participants or teachers. Four, these opportunities for growth have the potential to encourage professional reflection and create a self-awareness of one's current level of instructional practice. Five, collegial support systems that value professional growth, moral support, and small group interactions build on the individual and collective resources of the teachers (Paquette, 1987).

The literature has long indicated that teachers need continuous, school-specific support to attain sustained improvement across content areas and ultimately impact student learning (Coggins, Stoddard, & Cutler, 2003). The National Staff Development Council, which changed its name to Learning Forward in 2012, developed a set of standards for professional learning in a collaborative manner with representatives from 40 professional and educational organizations providing input. The standards developed have been revised three separate times and are divided

into six categories: learning communities, leadership, resources, data, learning designs, implementation, and outcomes (Hirsh, 2005; Learning Forward, 2011).

While the standards are not a prescription for how education leaders should address all of the challenges related to improving the performance of educators and their students, they do establish that the function of professional learning is for teachers to develop the knowledge, skills, and instructional practices required to help students maximize their learning. Therefore, as a result, the standards are referred to as the Standards for Professional Learning instead of Standards for Professional Development. This focus on professional learning encourages teachers to become active and collaborative participants in their own professional learning and determine whether the learning is benefitting their instructional practices. As a result, the combination of a heightened quality of teacher learning and improved instructional performance through peer collaboration represents a shift to enhancing student learning outcomes through peer influence and structured interactions (Hirsh, 2005; Learning Forward, 2011).

### *Coaching*

Gottesman's (2001) effort reflected back on Morris Cogan's work on clinical supervision in the Newton School System in 1973 as he initiated "the idea of professionals helping each other" (Gottesman, 2001, p. 124). In the 1980s, Joyce and Showers (1996) analyzed more than 200 studies that examined the impact of a variety of professional development approaches on teaching instructional practices. During this period of time, "coaching" was gaining momentum in the corporate world as a method of training new employees as well as for developing veteran or seasoned employees within an organization through structured interaction and dialogue

(Parker, Hall, & Kram, 2008). As a result, the term “coaching” was introduced with the goal of improving the instructional practices of teachers by using the skills in their field to improve the instructional practices of colleagues. This approach was accompanied by the suggestion that successful professional development consists of five distinct pieces: “presentation of theory, modeling or demonstration, practice under simulated conditions, structured and open-ended feedback, and coaching for application” (Strother, 1989, p. 824). While the use of these pieces together proved successful, Joyce and Showers believed that the key element was for teachers to learn how and when to use new instructional practices to meet the needs of their students. Therefore, they used an explicit coaching approach to meet this goal (Joyce & Showers, 1996; Joyce & Showers, 2002; Strother, 1989).

Tschannen-Moran and Tschannen-Moran (2010, 2011) asserted that coaching promotes teacher growth by addressing five concerns. First, a coach’s concern for consciousness produces an environment with increased self-awareness and confidence. Second, there should be a concern for a connection or level of trust established and maintained between the faculty and staff, including between the teachers and administration. Third, a concern for competence is important as teachers build on their strengths and attempt to develop and move forward with mutually agreed-upon goals. Fourth, coaching is an opportunity to remind teachers of the reason(s) why they became a teacher, including their personal passion for learning. Fifth, for transference and implementation to be maximized in a classroom setting, creativity must be encouraged, not coerced. Knight (2011c) associated this effort of coaching with the combination of freedom, collaboration, and accountability as teachers begin reflecting on their instructional practices in a

manner of determining not only good, but also the best instructional practices for improved student learning (Knight 2011c; Tschannen-Moran & Tschannen-Moran, 2011/2010).

### *Peer Coaching*

Growth and reflection are the goals of coaching (Greene, 2004). A variety of collaborative methods have been developed and implemented to support and encourage the growth of teachers' skills. Peer coaching developed from a variety of theories that regarded professional learning as a social process that builds on teachers' knowledge, experience through dialogue, interactions, and reflective practices (Foltos, 2013). Whether in a dyad or small group setting, peer coaching can be a simple, nonthreatening structure formed to provide opportunities for teachers to help each other to improve instructional practices (Gottesman, 2001). Robbins (1991) suggested that peer coaching has been one of the most popularly chosen types of coaching as it assumes equal standing and participation of teachers while focusing on the teacher(s) as learner(s). Peer coaching allows teachers to collaborate and support one another while establishing the expectation for on-going, consistent assessment of student academic progress based on local, state, and national standards (Glickman, Gordan, & Ross-Gordon, 2004).

Unlike other approaches of collaboration, peer coaching is intended to encourage teachers' professional development as well as serve as the acclimation of new instructional practices in their classrooms (Joyce & Showers, 1982). For example, Showers (1984) characterized peer coaching as providing a "safe environment in which to learn and perfect new teaching behaviors, experiment with variations of strategies, teach students new skills and expectations inherent in new strategies, and thoughtfully examine the results" (p. 47). Robbins (1991) referred to peer

coaching as a confidential process between two or more teachers in which they work collaboratively to support the improvement of each other's instructional practices. In addition to fostering teachers' collaboration, peer coaching promotes skills that have been associated with leadership and reflective teaching (Arredondo & Rucinski, 1998, 2005; Crilley, Good, Kohler, Shearer, 1997; Osterman & Kottkamp, 1993; Zeichner & Liston, 1987).

While peer coaching was initially designed as an approach for bridging the gap between traditional book learning and classroom application, peer coaching has evolved into a reform model of assisting teachers to engage in consistent, reflective dialogue and professional interaction about instructional practices. However, the forms that it can take often seem limitless (Foulger, 2005; Guiney, 2001; Joyce & Showers, 1982, 1996, 2002). Robbins (1991) suggested that these forms may be formal and include a structured pre- and post-conference based on a classroom observation, or they can be informal with an arrangement such as storytelling about teaching practices or a videotape analysis of a peer's lesson. Since 2001, Knight (2011c) has taken this process a step further to include the goal of moving from good instructional practices to the best instructional practices for a particular context for both individual and collective student learning.

The peer coaching process has been viewed as a reciprocal relationship as both/all peers may observe each other and serve as a coach to the other. Both individuals receive benefits from the relationship and interaction (Arredondo & Rucinski, 1998; Huston & Weaver, 2008). For example, Joyce and Showers (1982) stated that peer coaching was designed to accelerate teacher development and implementation of new practices into the classroom. According to the

literature, peer coaching includes the following basic characteristics: (1) equal status of peers/colleagues (Seigel, 2000); (2) focus on personal and professional improvement of both peers (Seibert, Kraimer, & Linden, 2001); (3) blending of reflection and practice (Daudelin, 1996; Raelin, 2000; Van Manen, 1977); (4) value of the process of improvement (Joyce & Showers, 2002); (5) focus on supportive coaching rather than evaluative coaching (Joyce & Showers, 1996, 2002; Robbins, 1991); and (6) confidentiality between participants (Robbins, 1991; Showers & Joyce, 1996, 2002).

When contemplating the relationship between peer coaching and instructional practices, the review of relevant literature acknowledges the importance of clarifying the use of terms such as peer coaching, peer mentoring, and peer influence. In an educational model, peer coaching and peer mentoring are similar approaches in which people with experience assist other educators who typically have less experience in the teaching profession. In Conley, Bas-Isaac, and Scull (as cited in Murray et al. 2009) peer mentoring relationships were defined as a professional development approach with a hierarchical connection between seasoned teachers and less-experienced teachers. The same study perceived peer coaching as a professional development relationship with common interactions and discussions; however, the participating educators were of equal status. Furthermore, peer coaching generally consists of efforts to target explicit skills and procedures, while peer mentoring is more often characterized as a long-term process which results in a more personal relationship being formed between the participants (Murray et al., 2009). These two terms are often used interchangeably because of their similarity in nature,

and both share the goal of assisting teachers to improve instructional practices and student achievement.

In other related research, peer influence has been used as a comparable expression to peer coaching and peer mentoring. Peer influence serves as an umbrella-like expression, and it entails a professional development relationship which includes the collaborative interaction of educators around issues of teacher and student learning as well as the establishment and growth of instructional guidance networks among teachers (Supovitz, Sirinides, & May, 2010).

#### *Models and Forms of Peer Coaching*

Variations of peer coaching appear in the literature, such as technical coaching, collegial coaching, cognitive coaching, team coaching and challenge coaching. Technical coaching was designed to target the gathering and transferring of new instructional practices from in-service trainings to the classroom setting. Collegial coaching has been described as a refinement of instructional practices by fostering professional dialogue which consequently may increase student achievement and proficiency. Cognitive coaching is a type of collegial and peer coaching that focuses on understanding and developing patterns of how to think, learn, and assimilate information (Ackland, 1991; Costa & Garmon, 2002; Glickman et al, 2004; Showers & Joyce, 1996). Team coaching is a variation that includes teachers teaching alongside other teachers while working through the various components of peer coaching. Challenge coaching targets a specific concern or problem that a classroom, grade level or department, or school has experienced (Ackland, 1991; Glickman et al., 2004; Showers & Joyce, 1996). Knight (2011c)

referred to this as a problem of practice that a faculty can specifically target for observation, feedback, and improvement.

The literature provides a range of forms and ways to implement peer coaching for the improvement of instructional practices. Ackland (1991) suggested two basic forms for implementing peer coaching. These two forms are: (a) coaching by teachers that are specially trained with a recognized amount of expertise, and (b) reciprocal coaching with teachers observing and coaching each other in a joint effort (Ackland, 1991).

Several peer coaching programs are based on the belief that experienced teachers with a perceived amount of expertise can provide guidance and advisement through a coaching effort. One option is for teachers to attend and receive specialized training and then share the new skills or expertise with colleagues upon his or her return to school. Within this form, Little (1982) referred to these expert teachers taking the role of “teacher advisors” while Leggett and Hoyle (1987) referred to them as “demonstration teachers.” In both options, all participants are still viewed as possessing equal status, but the “expert teachers” have additional knowledge or training to share.

Another form of peer coaching is reciprocal peer coaching. It implies a reciprocal relationship in which teachers are encouraged to learn instructional methods together, observe one another’s implementation of the techniques, and provide non-evaluative feedback to each other. Showers (1984) claimed that one of the major benefits of this form was that with minimal training, all teachers could potentially serve as peer coaches, with each teacher contributing to the collective effort. Furthermore, Showers stated that training for instructional techniques or

other content related materials should be blended with the training for coaching or sharing with colleagues. Ackland (1991) suggested this often originates with teachers attending a training together, implementing it in their classrooms, and then taking turns observing the implementation in each other's room accompanied by non-evaluative feedback. This last step of feedback was an informal, routine gathering to discuss what did or did not go as well as planned, perceived challenges, and the potential next steps for each teacher (Ackland, 1991).

#### *Peer Coaching Research Studies*

Joyce and Showers (2002) stated that the major purpose of peer coaching was the implementation of innovations and instructional practices to the degree that educational benefits to students are discernible. In the early 1980s, Sharan and Hertz-Lazarowitz (1980), noted effective educational programs could be supported through in-class assistance as well as teachers observing and providing feedback to one another. Their initial push was to provide a minimum of approximately 50 hours of training to teachers for learning new instructional strategies with a format including a consultant and teams of three or four teachers. The teams participated in collaborative planning for the implementation of the requisite course content, observation of instructional practices, and feedback to one another. In the second year of the study, 65% of the teachers were using small-group teaching on a consistent basis. The study cited the importance of the thoroughness of the training and the in-class follow up, including the peer support (Joyce & Showers, 2002; Sharan & Hertz-Lazarowitz, 1980).

Joyce and Showers (2002) hypothesized that on-going classroom support was vital for the implementation and integration of new instructional practices to become a part of a teacher's

repertoire. Their study examined the impact of this consistent support following the initial training of teachers. They found that the on-going “technical assistance, whether provided by an outside expert or peer experts, resulted in much greater classroom implementation than was achieved by teachers who shared initial training but did not have the long-term support of coaching” (Joyce & Showers, 2002, p. 85). As a result, Joyce and Showers (2002) stated that coaching seemed to accelerate and encourage the transfer of training in five ways:

- (1) Coached teachers usually implemented new instructional strategies more frequently and continued to develop their pedagogical skills than did the un-coached teachers who had received the same training.
- (2) Coached teachers implemented the new learning strategies more suitably than un-coached teachers.
- (3) Coached teachers demonstrated greater long-term retention of the knowledge and skill about the strategies they had been taught.
- (4) Coached teachers were more apt to implement new instructional strategies into their classrooms.
- (5) Coached teachers displayed clearer perceptions to the purpose and uses of the new instructional practices and strategies (p. 86-88).

Joyce and Showers (2002) began looking at peer coaching to involve the school as a whole as opposed to strictly the pairing of teachers with one serving as a mentor or expert. In addition, the feedback piece was omitted from the peer coaching approach because Joyce and Showers found that teachers experienced difficulty with avoiding a supervisory stance including

evaluative or judgmental comments, possibly from their involvement with clinical supervision activities. Therefore, the core task of peer coaching became the collaborative planning piece accompanied by the development of the curriculum and instruction. Consequently, the definition of peer coaching evolved to include colleagues observing each other with the observing teacher attempting to learn about a specific instructional strategy that was under implementation. This was achieved by observing the peer or colleague implementing the instructional strategy, and following the observation, time was required for the teachers to collaboratively reflect and discuss the implementation of new and existing instructional practices (Joyce & Showers, 2002).

The shift of using peer teachers as trainers rather than experts was not a new concept as it was examined in the 1970s by Bentzen (1974), Devaney and Thorn (1975), Sharan and Hertz-Lazarowitz (1982), and Berman and McLaughlin (1975). Collectively they emphasized the importance of teachers observing and assisting one another with improving instructional practices for long-term benefits. Additional research and studies concluded that teachers coaching each other as peers promoted collegial relationships and fostered a professional learning environment which valued the knowledge and experience of its teachers (Delaney & Arredondo-Rucinski, 1998; Garmston, 1983; Kovic, 1996; Little, 1982).

Kohler, Crilley, Shearer, and Good (1997) suggested that research studies have targeted three outcomes to determine the impact of peer coaching: (a) a change in teachers' instructional strategies and practices; (b) the interaction between the teachers and the peer coaches; and (c) student achievement as a result from peer coaching. Joyce and Showers (2002) asserted that peer coaching can substantially improve pedagogical knowledge, skill, and the transfer of training to

the classroom environment. They concluded that as high as 95% of participants are likely to transfer their training into their classroom when instructional support and an expectation of professional collaboration were present.

Greene's use of surveys (2004) explored various aspects of the implementation of peer coaching. One, teachers were found to associate in a positive manner with planning together with coaches, peers, or colleagues. Two, the amount of time devoted to dialogue and interaction with the coaches or peers varied. However, reflection or time to think was viewed as a requisite factor for professional growth. Three, structured and frequent interactions between the teachers and the coaches were viewed as more supportive by the teachers. Four, teachers' discerned contradictions between theory and practice among coaches or peers. Five, the action of teachers observing the instruction of coaches or peers encouraged an environment for teachers to self-reflect and modify their instructional practices. Six, obstacles or barriers that impeded the impact of peer coaching were insufficient amount of time, scheduling issues, and the unwillingness of some teachers to participate (Kohler, Crilley, Shearer, & Good, 1997).

### *Instructional Coaching*

The literature has defined peer coaching as a simple, nonthreatening process where two or more colleagues or teams of teachers regularly work together to reflect and improve instructional practices. At the Kansas University Center for Research on Learning, the concept or process of peer coaching has taken an approach of using teacher leaders as full time instructional coaches to enhance the professional development among colleagues (Knight, 2004, 2011c). Robb (2000) described this type of peer coaching as blending the idea of a coach or peer partner to develop a

position called lead teacher, instructional partner, or instructional coach. The fundamental objectives of peer coaching remained unchanged: increase, refine, and build new instructional skills; share ideas; edify one another; perform classroom research; and solve problems of practice in the workplace (Gottesman, 2001; Knight, 2011c; Robbins, 1991; Showers, 2002; Valencia & Killion, 1988). However, an instructional coach's core task has been to help teachers to see how research based instructional practices can impact student learning. It uses an approach that builds one-on-one rapport among teachers at the school while simultaneously promoting and building a professional development support structure or professional learning community that values professional dialogue and interaction among the faculty and staff. Knight (2004, 2011c) suggested three requirements for selecting the most successful instructional coaches: (1) "flexible, likable, good listeners with great people skills, and committed to learning" (p. 35); (2) reputation as an excellent classroom practitioner; and (3) willingness and ability to model lessons in multiple classroom settings that support the teachers' instructional needs.

As an instructional partner or coach attempts to listen, collaboratively plan, teach, and reflect with each teacher or group of teachers, their partnership or coaching role includes six basic responsibilities (Knight, 2011c; West & Staub, 2003). First, instructional coaches meet with departments and grade level teams to evaluate current instructional practices and student learning. Two, regular or consistent one-to-one or small group meetings are scheduled with teachers to determine the professional interests and needs of the faculty. As a result, the culture of the school is impacted (Knight, 2011c). Three, teachers meet with the instructional partners individually or in small groups to learn about new instructional strategies. Four, instructional

coaches observe and model lessons in teachers' classrooms which are focused on specific instructional strategies and practices. However, in order to increase the probability of implementation, Knight (2011c) suggested that this process begin by involving teachers that volunteer to be observed and receive suggestions. In addition, as the professional relationship evolves, the partnership includes opportunities for side-by-side teaching involving either partners or peers. Five, one of the key elements of instructional coaching or partnering requires the designated instructional coach or partner to respond or initiate a dialogue in a timely manner while the teacher is most receptive to assistance and advisement (Knight 2004, 2011c). Furthermore, in a separate study, there was an initial question about whether teachers could be informally trained to coach or lead their peers. However, the findings articulated that all participants in the study had become partners in implementing new instructional strategies (Zwart, Wubbels, Bergen, and Bolhuis, 2009, p. 243).

#### *Instructional Partnership Pilot*

In 1991, the A+ Education Partnership was founded in Alabama by a statewide nonprofit that desired to improve Alabama's 21% illiteracy rate which at the time was the highest in the United States. Then, in 1999, the A+ Education Partnership formed the Alabama Best Practices Center (ABPC) to assist schools to improve innovation and instructional practices by not only accentuating best practices, but also placing an emphasis on developing partnerships with schools and educators. The original intent of the ABPC was to identify and recognize schools implementing instructional strategies aligned with the standards set forth by the National Staff Development Council, but the focus shifted to developing structures, such as the Powerful

Conversations Network, to monitor a school's progress in the use of the best instructional practices. The network was a voluntary opportunity for administrators and teachers to collaborate and discuss instructional practices with other professionals through both daylong meetings of professional development and school observations coordinated by the ABPC (Gassenheimer, 2012, 2013).

Following the success of the network, a relationship was established with the Alabama State Department of Education to form a new instructional coaching model called the Instructional Partnership Pilot that addressed the need to prepare faculties for the implementation of the College and Career-Ready Standards (CCRS) by using teaching peers as instructional partners to lead collaborative professional development in their schools. This initial shift was a move from a content specialist (reading, math, science) to more of a specialist on adult learning, data analysis, and best instructional practices accompanied by a parallel shift from being viewed as an expert in a single content area to becoming a professional partner in improving instructional practices. As a result, the goal was to positively impact student learning through the fundamental effort to improve instructional practices by prioritizing critical thinking, communication, collaboration, and creativity (Gassenheimer, 2012, 2013).

The Instructional Partnership Pilot was built on seven principles that the ABPC learned from a project funded by Microsoft Partners in Learning. First, relationships are important in successful schools, and "innovation spreads through relationships" (Gassenheimer, 2013, p. 41). Second, schools and educators must be quick to adjust to the needs of its students. The implementation of the Alabama College and Career Readiness Standards (CCRS) serves an

example. Third, “there is no substitute for authentic dialogue among participants” (p. 42). Fourth, the network of educators must seem small to participants by increasing the ease of accessibility whether by technological means or by creative mixed gatherings. Fifth, the awareness of professional literature and research studies should remain current in order to meet the moving target type needs of all students (Gassenheimer, 2013). Sixth, Knight (2011) reminded educators that “equality is central within any partnership...In a true partnership, one partner does not tell the other what to do: they discuss, dialogue, and then decide together” (Knight, 2011c, p. 29) Seventh, reflective practice is essential for innovation and instructional practices to continue to meet instructional needs. As with this research study, the focus on establishing professional relationships with a partnership or equal mindset encourages instructional peer coaches and their colleagues to “go slow to go fast” through intentional, explicit dialogue and interaction as well as reflection (Knight, 2011c, p.36).

A summarization of a basic peer coaching cycle used in the Instructional Partnership Pilot is as follows (Gassenheimer, 2012, 2013).

1. Trust and rapport are built between all participants as opportunities are provided that present or discuss best instructional practices based on research. During this initial stage, the benefits of peer coaching and the expectations for the effort are experienced by all parties. For example, all decisions and actions are made with student learning in mind.
2. With student data playing a central role, a pre-conference is conducted with individual teachers or a grade level to plan lessons and set a focus for the observation.

3. A lesson is observed by one or more colleagues who write notes in narrative or checklist form for the debriefing.
4. Following the observation, the peers meet to engage in a time of reflection free from judgment. The observing peer steers the reflective piece or structured dialogue with clarifying questions and non-judgmental impressions of the observed lesson.
5. The peers design a plan for what steps are to be taken next as well as what support is needed (Gassenheimer, 2012, 2013).

Costa and Garmston (1994) developed an approach such as the one implemented by the Instructional Partnership Pilot by describing four reasons why peer influence accompanied by coaching should be integrated into the professional environment of schools. First, coaching improves the intellectual abilities of educators, who in turn positively impacts student learning. Second, peer influence and the coaching element increase the rate of sustained transference and the impact that new ideas and innovations have on instructional practices of both novice and experienced teachers. Third, the use of a coaching approach encourages a collaborative or team environment which maximizes the value of each faculty member. Fourth, relationships among faculty members are valued and strengthened as “norms of experimentation and open, honest communication enable everyone to work together in healthy, respectful ways” (p. 8).

Furthermore, the essence of peer coaching has been positive for teachers to view themselves as learners and experience time to learn from one another while planning instruction, observing in other classrooms, and reflecting about the impact their actions may have on student learning. As a result, the expectation and environment were established for instructional practices

to evolve from good to better instructional practices for student achievement (Knight, 2007, 2011).

### *Reflection*

“The purpose of education is to develop the mind of the learner, whether the learner is a child or an adult” (Arredondo & Rucinski, 1998). Literature suggests that the development of the adult learner and instructional practices can be accelerated and improved through the use of reflection and reflective practices. The term “reflection” has a Latin origin as it derived from the term “reflectere” meaning “to bend back” (Valli, 1997, p. 67), and a variety of different terms have been used throughout the literature to describe reflection. These have included: reasoning, inquiry, thinking, reflective judgment, reviewing, problem solving, reflective thinking, and reflective practice. However, reflection should not be confused with a reflex or impulse reaction. Reflection is a thoughtful action with a duration and level of complexity that can vary depending on the situation.

Dewey (1933) viewed reflection as a part of the educational process by which the learner attempts to make sense of one’s experiences on a deeper level of understanding through concentration and careful consideration (Dewey, 1933; Osterman, 1990). Consequently, Dewey considered the process of reflection to be an “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends” (Dewey, 1933, p. 6). Dewey asserted that reflective thinking transferred people from routine thoughts and actions toward reflective and calculated actions that supported the opportunity to continue ongoing improvement (Dewey, 1916, 1933; Finlay, 2008).

Based on Dewey's writings, Smyth (1989) described four cyclical and sequential stages for reflection that are linked to questions which encourage personal and professional transformation:

1. Describing – What do I do?
2. Informing – What does this mean?
3. Confronting – How did I come to be like this?
4. Constructing – How might I do things differently?

These stages and questions were designed to challenge teachers to consider their own experiences in applying knowledge to instructional practice while being supported by colleagues or peers in the teaching profession (Arredondo Rucinski, 2005; Smyth, 1989; Wellington, 1991).

### *Reflective Practice*

Schön (1984, 1987) used the term “reflective practice” which is the practice by which professionals become aware of their inherent knowledge base and learn from their experience. Schön suggested that to be considered a skilled or accomplished practitioner an individual must be a reflective practitioner beyond a simple debriefing session after a lesson. He described procedures in which practitioners could become more aware of their implicit knowledge and learn from their experiences through three types of reflection, reflection in action and reflection on action, as well as reflection for action. Reflection in action referred to reflecting on a given behavior as it is happening. This provides the opportunity to make immediate adjustments. Conversely, reflection on action is the act of reflecting after the event has occurred. This action can be in the form of reviewing, analyzing, and evaluating the experiences for future

improvements (Schön, 1984). Furthermore, Schön's (1984) notions of reflective practice involved teachers asking themselves: (1) What does this convey about my instructional practice? (2) What does both research and student data say about this area of my instruction? (3) What are my next steps to meet the needs of my students?

The literature suggested that reflective practice can be a challenging, focused, and important evaluation of one's own behavior and experiences as a method for improving one's own professional skills. Schön (1987) described the process as a "dialogue of thinking and doing through which I become more skillful" (p. 31). Eby (2000) viewed reflective practice as a synthesis of self-awareness, critical thinking, and reflection. According to her, reflective practice has the potential to enhance professional practices in at least three ways. These include an increased sense of self-awareness, a development of new knowledge and professional skills, and an expansion of one's comprehension of the problems of practice which confront teachers. (Schön, 1984, 1987). In addition, Arredondo Rucinski (2005) described a procedure by which individuals can examine their own beliefs and behaviors and ask themselves questions, both explicit and implicit, about the origins and congruencies between these beliefs and practices leading toward improved professional practices.

#### *Reflective Practices Impact on Curriculum and Instruction*

In contemplating the influence of reflective practice, one might consider the curriculum or educational content being taught. Many years ago, Schwab (1969) asserted that the current state of curriculum had become "moribund" and required major attention and amendments to ensure improvements and success due to its "over reliance" on theory. He argued that the field of

curriculum's dependence on theory had led to instability and the overall destruction of the teaching and learning process. Schwab began by making three main points. One, he suggested that the field of curriculum had become weak due to its processes and standards, overwhelming standardization of the education field, and lack of input from various stakeholders. Two, curriculum had reached a sad condition due to its dependence on theory and abstract concepts which can be argued as unsuitable for dealing with problems related to concrete teaching and learning. Three, the field of curriculum could be revived if the focus of curriculum shifted from the "theoretic to the practical, to the quasi-practical, and to the eclectic" (Schwab, 1969, p. 1). Consequently, he claimed that curriculum had been reduced to simple technique and lost its ability to offer anything new or practical to educators (Schwab, 1969). Schwab concluded that deliberation was important and thus reflection by implementation. For example, those who implement the curriculum should have the opportunity to collaborate and provide input. While the practice of deliberation seems to be a helpful way of promoting input while improving student learning, the difficulty associated with implementation was a result of the insufficient amount of time for teachers to reflect, plan, and meet together (Schwab, 1969).

Van Manen (1977) wanted to make a connection between Schwab's views of being practical and being theoretical. His primary effort was associated with whether critical reflection and practical thinking could combine to sufficiently address questions related to the field of curriculum at a variety of levels? His effort was based on four concepts: (1) the concept of orientation; (2) the concept of experience; (3) levels of reflectivity or ways of knowing; (4) philosophies of knowledge. The concept of orientation was the manner in which an individual makes sense of his or her

environment. The concept of experience dealt with how an individual's life or background experiences could either assist or hinder how the individual is able to make sense of new information and build on background knowledge. Van Manen suggested that reflective thinking consisted of a hierarchy of three levels: technical, interpretive, and critical. Lastly, Van Manen suggested that there are three "philosophies of knowledge" (Van Manen, 1977). The three levels for reflecting can be applied to the dilemmas associated with the commonplaces of the teaching and learning process. Technical was viewed as the lowest level of reflectivity because it was process oriented and focused on the means rather than the ends. The middle level of reflectivity was called the interpretative level as one begins to look at the background information that surrounds situations, experiences, perceptions, and/or assumptions. The highest level of reflectivity was called the critical level and it corresponded with the progress associated with the independence of the individual. It considered multiple perspectives and potential outcomes of given situations or experiences (Van Manen, 1977).

While each level should be considered collectively when reflecting and making curriculum related decisions, one must be cognizant and use accordingly based on the curriculum topic and situation. The three "philosophies of knowledge" suggested by Van Manen (1977) were also emphasized. The empirical-analytic philosophy was related to the experience(s) or background upon which new knowledge could be constructed. Van Manen suggested that the hermeneutic-phenomenological philosophy could assist with building meaning structures visible and embedded in life. Then, the critical-dialogical philosophy was valued as it assisted and emphasized the importance of self-reflection (Van Manen, 1977). Therefore, Van Manen's arguments aimed to

build on the work of Schwab while still embracing “the practical.” However, he concluded that the theoretical aspect might be ignored. This included research, teacher input, and reflection. As a result, Van Manen suggested that one cannot ignore the theoretical aspect which entails research knowledge, reflection, nor the interpretation of “the practical” and its application to teaching and learning from the point of view of the three different philosophies of knowledge.

Reflective practice asks teachers to have an open-mind and willingness to self-reflect and to search for what are the best decisions and actions for student learning (Evans & Policella, 2000). As previously mentioned, Van Manen (1991) added to this perception as he suggested that teachers monitor not only the academic growth and welfare of their students, but they also be cognizant of the moral and emotional aspects that are part of the teaching profession. This type of approach exists within the various collaborative interactions, dialogues, and other reflective opportunities that educators have with one another in the Instructional Partner Pilot. However, these opportunities can be intense and rigorous. Arredondo and Rucinski (1998) researched and supported these types of collaborative opportunities as well as the levels of reflection through work with teachers and their supervisors. Their findings included that the more advanced and intense the collaborative dialogue, the more intense and rigorous reflection becomes. Furthermore, it was possible for multiple participants to express that they benefitted and developed more complex levels of reflective thought as a result (Arredondo Rucinski, Franco, Nocetti, Quierolo, & Daniel, 2009; Poovey, 2012).

These levels of reflective complexity can be categorized in a variety of ways. Collier (1999) used three categories of teacher reflectivity: descriptive, relative to context, and perspective. However, Arredondo Rucinski (2005) used four levels to group reflective standards: (1) emergent

and reflective use of practice, (2) proficient use of reflective practice, (3) skilled use of reflective practice, and (4) ethical and moral use of reflective practices. Arredondo Rucinski and Bauch's (2006) Reflective, Ethical, and Moral Assessment Survey (REMAS) is a 34-item Likert-type survey instrument used in this research study to measure the complexity of reflection. Arredondo Rucinski et al. (2009) also used reflection standards (Arredondo Rucinski, 2005) to assess changes in teacher reflection in their study of Chilean school teachers. Additionally, and in contrast, Yost and Forlenza-Bailey (2000) recommended applying a framework for assessing these levels. Their recommendation includes: (1) abstain from the use of descriptive language, (2) succinct, layperson type descriptions; (3) appropriately labeled events; (4) explanation accompanied by justification as to whether it was tradition or personal preference; (5) explanation with standard or theory as the justification; (6) explanation with other possible reflections and factors; and (7) an explanation with contemplation of ethical, moral, and/or political concerns.

#### *Structured Interactions in Conferences and Journals*

In a separate study, Arredondo and Rucinski (1998) began by acknowledging that the purpose of education was to improve the mind of the learner, without regard to whether the learner was a student or an adult. Their study was designed following methods first described by Reiman and Thies-Sprinthal's (1993) who asserted that cognitive developmental growth could be successfully sustained into adulthood (as cited by Arredondo and Rucinski, 1998). This cognitive framework consisted of a hierarchical structure accompanied by the belief that when a teacher's cognitive structure increases there is potential for a direct benefit to their instructional practices and to peer relationships. The purpose of the Arredondo and Rucinski study was to expand on

the Reiman and Theis-Sprinthal study by considering the effects of structured interactions such as professionally related conferencing between mentors and mentees. These interactions included structured conversation and response patterns between the mentors and mentees as well as reflective dialogue and judgment, including the use of journals. The researchers were interested in how easily the participants would learn the process, the effects of the supporting and challenging approach to the mentee's thinking, and the overall reactions from the mentors and mentees (Arredondo & Rucinski, 1998).

Arredondo and Rucinski's study (1998) approached the development of mentors and mentees by focusing on the results of reflective thinking, judgment, and/or conversation. This was accomplished by using a structured or explicit dialogue and response patterns that were established with the participants as well as journals and conferences related to targeting professional practices. The subjects of the study included eleven pairs of graduate students and their workplace colleagues. Pre- and post-assessments of moral reasoning and beliefs were administered. In addition to collecting both qualitative and quantitative data, the following steps were implemented with each pair of mentors and mentees: (1) observation, (2) reflective conversation, (3) mentee journaling, (4) mentor response, (5) professor review and feedback, (6) and mentor journaling. Furthermore, the conversations and dialogues were highly structured with a deliberate intent for implementation (Arredondo & Rucinski, 1998).

Assessments from this study included the Rest Defining Issues Test (DIT) and the Schommer Epistemological Survey. The Rest Defining Issues Test (DIT) was used to assess and monitor the changes in the moral reasoning of the mentors and mentees by presenting the

individuals six social issues, requiring him or her to choose a course of action for each issue, and then marking what values influenced his/her decision. The Schommer Epistemological Survey was used to measure the epistemological beliefs of both the participating mentors and mentees. The survey consisted of 63 items and used a 5-point Likert-type scale. Furthermore, the use of journaling forced both mentors and mentees to record their thoughts and conversations. This seemed to provide rich data to the study, as well as provide an opportunity for the professors overseeing the study to have a better gauge of how the study was progressing (Arredondo & Rucinski, 1998).

Based on the data collected by the researchers, it was determined “mentor and mentee interactions could foster important changes in cognitive structure” (Arredondo & Rucinski, 1998, p. 310). The Rest Defining Issues Test did not produce data to support a significant change in the moral reasoning of the mentees; however, it was noted that the small sample size probably skewed the result. While Schommer’s Epistemological Questionnaire also did not yield any significant differences between the pre- and post-test scores for either the mentors or the mentees, the assessment did reveal significant differences on six of the subtests within the overall measure (Arredondo & Rucinski, 1998).

Conversely, the qualitative data analysis in Arredondo and Rucinski’s study (1998) documented that both the mentors and the mentees could master and did enjoy the support and challenge process of peer coaching. More specifically, the mentees used the word “excitement” when sharing how helpful the reflective conversations were by providing them the opportunity to collaborate, vent, and reflect on classroom practices. However, based on the journal entries,

mentors benefited more from the experience than their mentee counterparts. In addition, the researchers stated there was evidence to support: (1) an upward movement to the upper stages of reflective judgment, (2) increased trust among the participants, (3) reduced sarcasm, and (4) increased professionalism (Arredondo & Rucinski, 1998).

### *Collaborative Interactions*

Murray, Ma, and Mazur's study (2009) examined a sample of peer coaching in the context of a program called the Mentored Implementation Program (MIP) which was developed in cooperation with the Appalachian Mathematics and Science Partnership (AMSP). The MIP served as the follow-up support to one to two week summer institute seminars focusing specifically on science and mathematics content. This follow-up support included establishing a peer partner network for the participants in which the peer partners were charged with observing each other in a classroom setting a minimum of two times per academic year. In addition, the MIP model included the establishment of lead mentors to: (a) help coordinate mentoring activities, (b) communicate regularly with each peer partner, (c) and observe each peer partner once per academic year. The roles of lead mentors were filled by district specialists and university professors (Murray, Ma, & Mazur, 2009).

The peer-partner conferences used by Murray et al. (2009) were designed to establish a foundation in which neither teacher was viewed as being an expert over the other teacher. Instead, the researchers established a peer-coaching model that focused on learning from one another in a fashion similar to Wenger's "community of practice" (1998). This concept featured mutual engagement as well as constant renegotiation of meanings and practices. Furthermore,

professional development occurred as they had open discussions structured for self-disclosure, feedback request, and mutual monitoring which set the tone for the clarification, elaboration, and reflection of instructional practices (Murray et al., 2009).

The purpose of the study by Murray et al. (2009) was to examine the effectiveness of a job-embedded professional development model of peer coaching consisting of fourteen teachers accompanied by the structure utilizing experimental and control groupings. For example, nine teachers in the experiment received peer coaching while the remaining five were part of the control group. The background of the teachers ranged from serving from kindergarten through the twelfth grade, and their range of experience varied, too. While both quantitative and qualitative measurements were used, the qualitative measurement of open-ended surveys was used with the experimental group to assess the teachers' perceptions of the MIP. In addition, the post-observation conferences were audio taped, transcribed, and analyzed to assess teacher collaboration and reflection. The quantitative component of the study, although not generalizable because of the small number of participants, focused on the effects of peer coaching on student achievement through the use of a pre- and post-test (Murray et al., 2009).

The results from the Murray et al. (2009) study varied. Peer partners expressed that (1) receiving feedback, (2) sharing ideas, (3) observing other teachers, and (4) the communication and support from another teacher were positives gleaned from the MIP. While there were several positives, it was stated that the questions from the conferences were not focused and often only provided minimal critiques and suggestions. The responses indicated that the discussions between peer partners failed to focus on specifically how classroom instructional practices could

be improved. In addition, areas such as scheduling, distance, and timing were perceived as the most pronounced barriers. Furthermore, the quantitative pre- and post-tests revealed that peer coaching in this study had no statistically significant effect on the students' mathematical achievement (Murray et al., 2009).

### Summary

Chapter two has presented a summary of the relevant literature for this research study. As Dewey (1916, 1933) explained, education is the reconstruction of one's experiences which adds to the meaning of the experiences while simultaneously increasing one's ability to work through, make sense of, and connect new experiences to existing knowledge and past experiences. He also provided a definition of learning by defining education as a verb rather than a noun (Rodgers, 2002). As a result, relevant literature has tended to support the idea that in order for classroom practitioners to meet the needs of their students, they need to consistently reflect upon their instructional practices through collaborative professional development and coaching opportunities which includes multiple levels of complexity and rigor.

## METHODOLOGY

The purpose of this study was to examine how peer coaching may promote and encourage metacognition and reflective practice for certified teachers in public elementary schools in north Alabama. The study described elementary school teachers in Grades Pre-Kindergarten through Grade Six in public elementary schools who participated in the Instructional Partnership Pilot in north Alabama (Gassenheimer, 2013). The study attempted to answer the following research questions:

1. Are there differences in the professional reflections of teachers involved in a peer coaching model as compared to the reflections of those teachers not involved in a peer coaching model?
2. Are there differences in the professional reflections of teachers involved in a peer coaching model such as the Instructional Partnership Pilot for one, two, or three years?

### Research Design

This research study used a non-experimental survey design that examined a hypothesized relationship between teacher participation in a peer coaching model and levels of reflection by the participants. The research was executed in a one phase quantitative approach. Data was analyzed using a computer software package for statistical analysis in social science, IBA - SPSS version 22. Creswell (2012) stated that quantitative research includes collecting numeric data from a large number of people using instruments with predetermined questions followed by “analyzing trends, comparing groups, or relating variables using statistical analysis, and

interpreting results by comparing them with prior predictions and past research” (p. 13). A single survey called The Reflective, Ethical, and Moral Assessment Survey – REMAS was used to collect data for this research study (Arredondo Rucinski & Bauch, 2006). Teachers served as the unit of analysis. The REMAS is a 34 item Likert-type rating scale designed to measure the extent that teachers perceived that they use reflective, ethical, and moral dispositions and leadership practices within their professional environments (Arredondo Rucinski & Bauch, 2006).

As designed, the REMAS focused on four areas of reflective practice. One the planning, dialoguing, and receiving authentic feedback from others was a targeted area. Two, constructing meaning and exploring multiple interpretations and options through dialogue and structured interaction were considered. Three, the subsequent or action steps following reflection and dialogue were isolated and analyzed as they relate to teacher participation in a peer coaching model such as the Instructional Partner Pilot. The data produced was subjected to a statistical analysis for developing responses to the study’s research questions, and the results were subjected to a factor analysis to check the validity of the variables. (Arredondo Rucinski & Bauch, 2006).

With this study, The Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) was used to survey public elementary school teachers. The survey collected data about how the teachers’ perceive their professional growth, reflective thinking, and reasoning as they are involved in a peer coaching model. The data provided information about how teachers not involved in a peer coaching model perceive their

professional growth, reflective thinking and reasoning. Additional demographic questions were added to the survey. These areas included consideration for gender, race, years of experience, and years involved with the Instructional Partnership Pilot as well as teacher perceptions of potential effects of their involvement in the Instructional Partnership Network on student learning.

The perception of potential effects on student learning was gauged through a qualitative approach with the inclusion of additional two questions at the end of the REMAS. One of them was closed-ended and appeared somewhat broad as it inquired whether the teacher perceived a correlation. The second question was open-ended and asked the elementary teacher to describe any effects from their participation on student learning. Open-ended questions, also called unstructured or qualitative questions referred to inquiries for which the response categories were controlled by the respondent. In contrast, closed-ended questions provided a limited number of response categories. Therefore, the use of the REMAS in this study concluded with respondents possessing the opportunity to answer at least one question that allowed the participating teachers the opportunity to describe their perception of the impact on student learning (Fontana & Frey, 2000; Mertler & Charles, 2008).

As previously stated, Arredondo Rucinski and Bauch (2006) identified four levels of reflective standards in The Reflective, Ethical, and Moral Assessment Survey (REMAS). Based on the research by Arredondo Rucinski and Bauch (2006), a principal component factor analysis was implemented (Poovey, 2012) with the four levels. The four factors were Reflective Dimensions (REFLDMS), Defensive Behaviors (DEFENBEH), Ethical and Moral Dimensions

(ETHMORDM), and Ethical Priorities (ETHPRIOR). The first factor, REFLEDMS, was generated from ten survey items. The second factor, DEFENBEH, was generated from five survey items. The third factor, ETHMORMDM, was generated from thirteen survey items. The fourth factor, ETHPRIOR, was generated from six survey items. Subscale scores were produced using the mean of all responses in each subscale. In order to determine the survey reliability, the internal consistency for the four factors Cronbach's  $\alpha$  coefficients was used. Pearson correlations were performed to determine the relationships between the four subscales (Hinkle, Wiersma, & Jurs, 2003; Poovey, 2012).

#### Population and Selective, Convenience Sample

Hinkle et al. (2003) defined population as "all members of a specified group" (p. 11). Therefore, it is not feasible to involve or measure all members of a population or group. As a result, Hinkle et al suggested selecting a smaller representation or sample of the group to study. The population or unit of analysis studied by this research study will be the elementary public school teachers in Alabama. These teachers are defined as educators teaching pre-kindergarten through six grades in Alabama public elementary schools in Regional District 8 as defined by the Alabama State Board of Education. According to the Alabama State Department of Education website ([www.alsde.edu/general/SDE\\_Directory.pdf](http://www.alsde.edu/general/SDE_Directory.pdf)), the population includes approximately 921 elementary public schools with more than 14,000 teachers (Poovey, 2012).

A selective, convenience sampling was proposed with the implementation of the Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) used with teachers in six public elementary schools in Alabama State School Board

District 8 that were involved in the Instructional Partnership Pilot as well as teachers in six comparable public elementary schools in Alabama State School Board District 8 that were not involved in the Instructional Partnership Pilot. As suggested by Glaser (1978), selective sampling is a practical approach that is “the calculated decision to sample a specific local according to a preconceived but reasonable set of dimensions such as time, space, and identity. Cresswell (2012), a convenience sampling is comprised of participants who are willing and available to be studied. While one limitation with convenience sampling is that one cannot be certain that the participants represent the entire targeted population, Cresswell (2012) stated that a convenience sampling “can provide useful information for answering questions and hypotheses” (p.146). Therefore, while this study extends previous research, a generalization cannot be made outside of the pre-kindergarten through grade six schools participating in the study.

As noted in Table 1, the selective, convenience sampling included a total of twelve public schools in District 8 with 389 elementary teachers as defined by the Alabama State Department of Education. More specifically, six of those elementary schools included two schools that had been involved in the Instructional Partnership Pilot for three years, two years, or one year. Therefore, two schools from each category were surveyed. The other six elementary schools surveyed were not participants of the Instructional Partnership Pilot, and they were selected as comparable schools within the same District 8 portion of north Alabama based on the composition of the school’s population which included the size of the student body and the overall socio-economic status of the school as well as the community served. The six schools from the Instructional Partnership Pilot included: Elementary “A” and Elementary “B” defined

as “class 1” with three years participation, Elementary “C” and Elementary “D” defined as “class 2” with two years participation, and Elementary “E” and Elementary “F” defined as “class 3” with one year participation. Elementary “A” was a large, upper socio-economic school, but Elementary “B” was a mid-size rural, lower socio-economic school designated as a Title I school. Elementary “C” was an urban medium, lower socio-economic school designated as a Title I school, and Elementary “D” was a large, upper socio-economic school. Elementary “E” was a small, urban school with a mixed socio-economic population, and Elementary “F” was a large urban school high socio-economic population. Each one of the other six schools in the study were determined to be comparable to one of the six participating schools based on population size, socio-economic status, and whether it was categorized as an urban or rural school as defined by the Alabama State Department of Education website ([www.alsde.edu/general/SDE\\_Directory.pdf](http://www.alsde.edu/general/SDE_Directory.pdf)).

While the six schools not participating in peer coaching were comparable to the six participating schools, the researcher was aware of a few additional characteristics. First, one of the non-participating schools had a strong reputation in its school district of being progressive with its use of technology to enhance instruction as well as for its commitment to on-going professional development. Second, most of the non-participating schools had attended professional development opportunities which emphasized establishing structures, habits, and expectations that value the collaboration among the faculty members in a manner similar to that of professional learning communities.

## Survey Sample Size

For this research study, the effect size indexes provided by Cohen (1992) will be used, and  $N$  will be defined as the requisite sample size for each group. Based on Cohen's (1992) effect size indexes, in order to identify an effect size of medium differences between sample means at  $\alpha = .05$  (p. 158).

Table 1

### *Characteristics of Participating Schools*

| <b>School Name</b> | <b>IPP Class</b>  | <b>Title 1</b> | <b>Enrollment</b> | <b>Certified Teachers</b> |
|--------------------|-------------------|----------------|-------------------|---------------------------|
| Elementary "A"     | Class 1 (3 Years) | Non-Title 1    | 720               | 41                        |
| Elementary "G"     | N/A               | Non-Title 1    | 514               | 36                        |
| Elementary "B"     | Class 1 (3 Years) | School-wide    | 536               | 35                        |
| Elementary "H"     | N/A               | School-wide    | 326               | 23                        |
| Elementary "C"     | Class 2 (2 Years) | Non-Title 1    | 754               | 43                        |
| Elementary "I"     | N/A               | Non-Title 1    | 587               | 42                        |
| Elementary "D"     | Class 2 (2 Years) | School-wide    | 381               | 29                        |
| Elementary "J"     | N/A               | School-wide    | 425               | 31                        |
| Elementary "E"     | Class 3 (1 Year)  | Non-Title 1    | 391               | 27                        |
| Elementary "K"     | N/A               | Non-Title 1    | 309               | 23                        |
| Elementary "F"     | Class 3 (1 Year)  | Non-Title 1    | 529               | 30                        |
| Elementary "L"     | N/A               | Non-Title 1    | 432               | 29                        |

*Note. IPP = Participated in the IPP*

## Instrumentation

The Reflective, Ethical, and Moral Assessment Survey (REMAS) is a 34 item Likert-type rating scale used to examine teachers' perceptions of their use of reflective, ethical, and moral dispositions and leadership practices within their professional environments (Arredondo Rucinski & Bauch, 2006). Responses for this survey vary from 1 = not at all to 6 = often. Five of the survey items target defensive behaviors of the teachers. While these are negative items, for example, blaming others and denying accountability, the ratings on these five were reversed for scoring purposes. Ten survey items targeted reflection, and the remaining items will ask teachers to report their perspectives of the frequency with which they view ethical and moral issues as related to their professional decisions and actions, the results of their professional decisions and actions, their prioritizing of ethical considerations, and whether their actions or behaviors included moral intentions and results in their professional actions and decisions when they were faced with competing or conflicting situations (Arredondo Rucinski & Bauch, 2006). The REMAS used were supplemented at the end of the survey with requests for demographic information and two questions about teacher perceptions of the effects of the Instructional Partnership Pilot on student learning.

## Validity and Reliability

Survey data must be both valid and reliable. Validity considers the extent to which all of the data reflect the intended explanation of the test scores for the intended purpose of the study. Reliability requires the instrument to provide data or scores that are both stable and consistent across multiple applications of the instrument (Creswell, 2012). The instrument that will be used

for this study, The Reflective, Ethical, and Moral Assessment Survey (REMAS), was developed by Arredondo Rucinski and Bauch (2006) to assess the perceptions or reflective practices of doctoral program graduates. The instrument was subjected to a test-retest reliability of survey items. A pilot study and test calculations were conducted on the internal consistency. The REMAS's "Cronbach's Alpha coefficients indicated moderately strong internal consistency for the overall scale (Cronbach's  $\alpha = 0.72$ ) and very strong for the ETHMORDM (Ethical Moral Decision Making) (Cronbach's  $\alpha = 0.91$ ) and the REFLDMS (Reflective Dimensions) (Cronbach's  $\alpha = 0.89$ ); the DEFENBEH (Defensive Behavior) (Cronbach's  $\alpha = 0.71$ ) and the ETHPRIOR (Ethical Priorities) (Cronbach's  $\alpha = 0.72$ )" (Arredondo Rucinski & Bauch, 2006, p. 501). Reliability greater than 0.7 has been suggested to be satisfactory when considering the overall quality of an instrument (Morgan, 2004). Therefore, the structure of the REMAS was determined to be both valid and reliable to assess the reflective, ethical, and moral decisions of the participants. However, because the REMAS was developed with doctoral students as the unit of analysis, this study will require an additional factor analysis because the unit of analysis for this study is elementary teachers.

#### Data Collection

The data for this research was collected using one source, The Reflective, Ethical, and Moral Assessment Study (REMAS, Arredondo Rucinski & Bauch, 2006). The initial step following the proposal was to attain approval from the University of Alabama Institutional Review Board (IRB) for all of the portions of the study. The second step was mailing a letter and an e-mail to each school district's superintendent to provide information about the research study

as well as request approval and written consent to proceed with the study (Appendix A). Each letter was followed with a phone call to gain verbal approval to proceed with the study within the school district within 2 weeks of the initial letters and e-mails. After securing both IRB and superintendent approval, local school administrators were contacted via telephone and e-mail. This third step included a follow up contact either via telephone or e-mail to answer questions and described how the surveys were to be administered to the teachers (Appendix B). The researcher provided copies of the surveys (Appendix C) and participant consent forms (Appendix D) to each school, based on the number of certified teachers listed on the local school website.

At each participating school, a portion of the faculty meeting in which teachers assemble was requested and used to administer the surveys. A brief description of the study was provided to the participants by the researcher or a designated individual such as the building principal. After the overview of the study, time for questions and answers was provided, and the Participant Consent forms (Appendix D) were provided to all participating teachers. Per instructions from the IRB, participants were not requested to provide their written consent as that could risk the confidentiality of their identity. Those that chose not to participate were allowed to leave the area at their discretion, and participants were reminded about the confidentiality of the survey, including teachers not including any identifiable information on their survey. Lastly, the surveys were collected by the researcher or the researcher's designee. In the event that the researcher's designee collected the surveys, he or she returned them directly to the researcher.

## Data Analysis

Quantitative research is an approach used to examine the relationships among variables by measuring and analyzing the numerical data using statistical procedures (Creswell, 2014). Surveys are commonly used when a quantitative approach is required because of the need to understand the attitudes, opinions, behaviors, or characteristics of the participants in the entire population (Cresswell, 2012; Cresswell & Plano-Clark, 2011).

Statistics, or mathematical procedures, are used to analyze the data produced by methods such as surveys. Based on the data collected and the breaking down of the data into smaller parts, the research questions can be answered, and logical conclusions and decisions can be made (Cresswell & Plano-Clark, 2011). This study used a factor analysis to determine the internal consistency among the variables. The four domains or underlying factors of the REMAS are: ETHMORDM, REFLDMS, DEFENBEH, AND ETHPRIOR (Arredondo Rucinski & Bauch, 2006). The subscale scores created by the means of all responses for the survey items in each subscale were analyzed using SPSS 22 with Cronbach's  $\alpha$  coefficients measuring the internal consistency or how closely related the set of items are as a group (Creswell, 2012). A multivariate analysis of variance (MANOVA) was used to evaluate the relationship between the four domains or factors of the REMAS. Normality was assessed using Q-Q Plots, and homogeneity of variances were determined by Levene's Equality of Variances Test using SPSS 22 (Creswell, 2012; Hinkle, Wiersma, & Jurs, 2003; Poovey, 2012).

*An independent-samples t test* was used to explore whether there was a significant difference in the reflective practices between teachers participating in peer coaching situations

such as the Instructional Partnership Pilot and those teachers surveyed who were not participating in peer coaching situations. The *t* test analyzed the difference between the means of two groups, to determine whether the difference is significant, that is, whether the difference of the two points could, or could not, be attributed to chance errors made in selecting the participants (Mertler & Charles, 2002). The *t* test did not reveal a difference between the perceptions of peer coaching participants and the perceptions of non-participants as determined by the mean data.

The one-way multivariate analysis of variance (MANOVA) is used to determine whether there were any differences between when two or more dependent variables and multiple independent groups are present. Therefore, the study used a multivariate analysis of variance (MANOVA) to make comparisons within and between the survey population of teachers (Hinkle et al., 2003; Mertler & Charles, 2002). The MANOVA assessed the question, “Are there differences in the professional reflections of teachers involved in a peer coaching model such as the Instructional Partnership Pilot for one, two, or three years?” The data were compared between the groups participating in the three different numbers of years with the Instructional Partnership Pilot and the non-participants. The data were evaluated on the four factors and on an overall score, and between the four groups to determine if or whether the length of involvement may or may not contribute to more in-depth reflections (Hinkle et al., 2003; Poovey, 2012).

### Variables

Independent and dependent variables play important roles in research studies. Independent variables proceed in time and apply influence on the dependent variables (Mertler &

Charles, 2008). In this study, the independent variables were the different levels of participation based on the number of years a school has participated in peer coaching opportunities such as the Instructional Partnership Pilot at the local school level. This included participation in the Instructional Partnership Pilot for a period of zero, one, two, or three years. Conversely, the dependent variables were the REMAS factors. These groups were compared on the four factors of the REMAS including: the Reflective factor (REFLDMS), the Ethical/Moral factor (ETHMORDM), the Defensive factor (DEFENBEH), and the Ethical Priority factor (ETHPRIOR). The analysis between the factors provided a method to conclude if more in-depth reflection transpired between participants of different lengths of participation in the peer coaching model, as experienced in the Instructional Partnership Pilot (Arredondo Rucinski & Bauch, 2006; Poovey, 2012).

### Ethics

Ethical practices are a foundational piece to research studies. Creswell (2012) asserted that “ethics should be a primary consideration rather than an afterthought” (p. 23). Therefore, the protection and rights of participants is a priority. Participants in a research study should be informed that their participation is optional and free of any penalty for not participating. In addition, steps were implemented to insure that the surveys and any accompanying data, including participant answers, remained confidential and non-identifiable individually, by school, or by school district (Creswell, 2012).

## Summary

The purpose of this research study was to determine whether the levels of reflective practice by the participants in peer coaching situations were different when compared to those participants not participating in peer coaching. The study aimed to add information to the research about whether reflection of elementary teachers participating in peer coaching situations differed from reflection of non-participants in the Instructional Partnership Pilot. The researcher's hypothesis was that the IPP promoted development of teacher reflection.

## RESULTS

The purpose of this study was to examine elementary school teachers' perceptions of their reflections after participating in peer coaching, as compared to the perceptions of reflections of elementary school teachers not participating in peer coaching. In Chapters I-III of this study, background information and a review of the literature were provided on peer coaching, reflective practices, and a description of the research methods used in the study. Chapter IV presents the results of the research study. The following research questions were used to guide the study:

1. Are there differences in the professional reflections of teachers involved in a peer coaching model as compared to the reflections of those teachers not involved in a peer coaching model?
2. Are there differences among the professional reflections of teachers involved in a peer coaching model for one, two, or three years?

The REMAS (Arredondo Rucinski & Bauch, 2006) survey was used to gather data about teacher reflection and about teachers' demographic information. Survey research was selected for this study in the form of this self-administered questionnaire, due to the efficient turnaround time in data collection and economy of design.

The initial section of this chapter describes the participants and data collection procedures, the second section presents the demographic data obtained from the surveys, and the final section addresses the comparisons between the groups used to determine reflective responses among the factors and the number of years of participation in the peer coaching example called the

Instructional Partnership Pilot (Gassenheimer, 2012, 2013). The chapter concludes with a summary of the findings of the presented data.

### Participants

The target group of participants was certified elementary public school teachers teaching in pre-kindergarten through sixth grades employed in north Alabama public elementary schools. Quantitative data were collected through the previously developed Reflective, Ethical, and Moral Assessment Survey (REMAS), a 34-item survey (Arredondo Rucinski & Bauch, 2006). Three school systems were contacted to participate within the District 8 portion of north Alabama, as determined by the Alabama School Board of Education. All three superintendents agreed to allow their elementary schools selected by the researcher to participate. As a result, twelve schools in north Alabama, with a total of 389 eligible teachers, participated in the surveys. Six of the twelve elementary schools had been involved in the Instructional Partnership Pilot with two schools from each length of participation of three years, two years, or one year. The other six elementary schools surveyed were not participants of the Instructional Partnership Pilot, and they were selected as comparable schools within the same District 8 portion of north Alabama based on the composition of the school's population which included the size of the student body and the overall socio-economic status of the school as well as the community served as defined by the Alabama State Department of Education website ([www.alsde.edu/general/SDE\\_Directory.pdf](http://www.alsde.edu/general/SDE_Directory.pdf)). As noted in Table 2, of the 389 certified elementary teachers in the twelve schools eligible to complete the survey, 313 returned the surveys for a return rate of 80.5%.

Table 2

*Summary of Alabama District 8 Schools Surveyed and Percentage of Return*

| <b>School Name</b> | <b>IPP Class</b>  | <b>Title 1</b> | <b>Certified Teachers</b> | <b>Responses</b> | <b>Percentage of Return</b> |
|--------------------|-------------------|----------------|---------------------------|------------------|-----------------------------|
| Elementary "A"     | Class 1 (3 Years) | Non-Title 1    | 41                        | 29               | 70.7                        |
| Elementary "G"     | N/A               | Non-Title 1    | 36                        | 30               | 83.3                        |
| Elementary "B"     | Class 1 (3 Years) | School-wide    | 35                        | 30               | 85.7                        |
| Elementary "H"     | N/A               | School-wide    | 23                        | 14               | 60.8                        |
| Elementary "C"     | Class 2 (2 Years) | Non-Title 1    | 43                        | 27               | 62.7                        |
| Elementary "I"     | N/A               | Non-Title 1    | 42                        | 40               | 95.2                        |
| Elementary "D"     | Class 2 (2 Years) | School-wide    | 29                        | 26               | 89.7                        |
| Elementary "J"     | N/A               | School-wide    | 31                        | 19               | 61.2                        |
| Elementary "E"     | Class 3 (1 Year)  | Non-Title 1    | 27                        | 25               | 92.5                        |
| Elementary "K"     | N/A               | Non-Title 1    | 23                        | 15               | 65.2                        |
| Elementary "F"     | Class 3 (1 Year)  | Non-Title 1    | 30                        | 30               | 100                         |
| Elementary "L"     | N/A               | Non-Title 1    | 29                        | 28               | 96.6                        |
| <i>Total =</i>     |                   |                | 389                       | 313              | 80.5                        |

*Note. IPP = Participated in the IPP*

All participating teachers were certified to teach in grades pre-kindergarten through grade six in Alabama public schools and were employed in schools within District 8 of north Alabama. The description of the study read to each faculty stated, "For the purpose of this study, the peer coaching model identified as the Instructional Partnership Pilot is defined as a collaborative professional development model with a focus on adult learning, data analysis, and best

instructional practices through small group reflective practices as well as school-wide reflective practices” (Gassenheimer, 2012, 2013). Teachers completing the survey, and having participated in a peer coaching model, as defined above, such as the Instructional Partnership Pilot, within the last 3 years (2011-2013) comprised 167 of the 313 surveys or 53%. There were 146 survey participants who had not participated in a peer coaching model such as the Instructional Partnership Pilot in the last three years, equaling 47% of returned surveys.

According to the National Center for Education Statistics (NCES, 2007-2008), the percentage of the gender and age of teachers is similar from a national and state perspective. Therefore, the ratio of female to male teachers in this study supports the national data for teachers, with the ratio of female to male teachers being higher. In addition, national demographic data reported 44% were under the age of 40 (Poovey, 2012). As presented in Table 3 and upon review of the 313 returned surveys, the data varied across the target population. It was determined that 18 or 5.8% of the returned surveys were from males as compared to 294 or 93.9%, returned responses from females. One respondent or 0.3% of the returned surveys did not denote their gender. Furthermore, female participation (92.2%) and male participation (7.2%) in peer coaching differed considerably in peer coaching participation rate. One participant in peer coaching or 0.6% of the returned surveys did not denote their gender.

The mean rate of participation in peer coaching was 53.4% with the range of 7% to 18% across all age divisions. More specifically, the ages of respondents with the highest level of participation in peer coaching were 22 to 29 years with 30 participants or 18%. The next highest level of participation based on age was the 30 to 34 years of age category with 26 participants or

15.6%. In addition, the age of respondents with the lowest participation in peer coaching during those three years was in the category of individuals 50 to 54 years of age. Lastly, the current position, grade levels taught, or specialty area with the highest percentage of participation was teachers who taught primary grades such as grades, pre-kindergarten through grade 2 with 100 participants or 59.9%. Resource teachers had the lowest percentage of participation with 19 participants or 11.4%.

Based on the returned surveys, the length of participation in the IPP peer coaching model varied from one year to three years, but their perception that the IPP had on student learning seemed to be consistent (see Table 3). First, 38.3 % of the respondents had participated in the IPP for three years, and the next largest group with 31.1% of the respondents was those with one year of participation. It should be noted that 20 respondents or 12% did not identify the length of their participation. However, 132 respondents or 79% expressed a perception that the IPP had or was having an impact on students. Only 7.8% or 13 respondents did not perceive that the IPP had impacted student learning, as well as, 22 or 13.2% who did not respond to the question.

Table 3

*Summary of Participant Demographic Data*

| Participants                                 |                   | Total   |      | IPP     |      | Not IPP |      |
|--|-------------------|---------|------|---------|------|---------|------|
|  |                   | n = 313 | %    | n = 167 | %    | n = 146 | %    |
| Gender                                       | Male              | 18      | 5.8  | 12      | 7.2  | 6       | 4.1  |
|  | Female            | 294     | 93.9 | 154     | 92.2 | 140     | 95.9 |
|  | No Response       | 1       | < 1  | 1       | < 1  | 0       | 0    |
| Age  | 22 - 29 years old | 54      | 17.3 | 30      | 18.0 | 24      | 16.4 |
|  | 30 - 34 years old | 42      | 13.4 | 26      | 15.6 | 16      | 11.0 |
|  | 35 - 39 years old | 44      | 14.1 | 24      | 14.4 | 20      | 13.6 |
|  | 40 - 44 years old | 45      | 14.4 | 20      | 12.0 | 25      | 17.1 |
|  | 45 - 49 years old | 38      | 12.1 | 21      | 12.6 | 17      | 11.6 |
|  | 50 - 54 years old | 32      | 10.2 | 19      | 11.4 | 13      | 8.9  |
|  | 55 + years old    | 24      | 7.7  | 10      | 7.0  | 14      | 9.6  |
|  | No Response       | 34      | 10.9 | 17      | 10.2 | 17      | 11.6 |
| Current Position                             | Primary Grades    | 175     | 55.9 | 100     | 59.9 | 75      | 51.4 |
|  | Intermediate      | 82      | 26.2 | 46      | 27.5 | 46      | 31.5 |
|  | Resource          | 52      | 16.6 | 19      | 11.4 | 33      | 22.6 |
|  | No Response       | 4       | 1.3  | 2       | 1.1  | 2       | 1.4  |
| Number of Years<br>in the IPP                | One Year          |         |      | 52      | 31.1 |         |      |
|  | Two Years         |         |      | 31      | 18.6 |         |      |
|  | Three Years       |         |      | 64      | 38.3 |         |      |
|  | No Response       |         |      | 20      | 12.0 |         |      |
| Perception of IPP<br>on Student<br>Learning? | Yes               |         |      | 132     | 79.0 |         |      |
|  | No                |         |      | 13      | 7.8  |         |      |
|  | No Response       |         |      | 22      | 13.2 |         |      |

*Note. IPP = Participated in IPP, NIPP = No IPP*

As previously noted, the surveys were administered at 12 schools: 6 schools that had participated in the Instructional Partnership Pilot, and 6 schools that had not participated in the Instructional Partnership Pilot. The participants were provided a consent form; however, a signature was not required as the IRB ruled that a signature would jeopardize the confidential identity of the participants. Following the reading of a brief recruitment script for the survey, participants were provided the REMAS survey and were requested to return the survey to the envelope located at a designated location in the room as provided by the survey administrator or researcher. All participants completed the survey in 15 to 25 minutes. When all surveys were returned to the envelope by the participants, the envelope was sealed.

### Statistical Analysis

#### *Descriptive Statistics Survey Instrumentation*

The Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) was the survey selected for this study. Participants were requested to respond to the 34 items on the REMAS using a 6-point scale. Arredondo Rucinski and Bauch first created this survey in 2004. An initial pilot study and test analysis were conducted on the internal consistency of the instrument. A second data collection using the REMAS was conducted following some wording changes based on participant input. Alpha reliabilities on the factors ranged from a high of 0.91 to a low of 0.71 on the third factor (Arredondo Rucinski & Bauch, 2006). The factor structure of the survey instrument and reliability of the survey instrument were determined to be both valid and reliable as a means to examine the perceptions of reflective,

ethical, and moral behaviors of participants. Arredondo Rucinski and Bauch (2006) developed the survey instrument to examine and evaluate the perceptions of doctoral program graduates. Because the participants in this study were elementary teachers, a second factor analysis was performed by Poovey (2012) to ensure the survey instrument was valid and reliable when used with the teachers. The analysis revealed the REMAS survey instrument to be valid and reliable to use with teachers (Arredondo Rucinski & Bauch, 2006; Poovey, 2012).

### Results

Following the initial review of the results of the survey instrument, the researcher determined that on 62 surveys the participant(s) did not respond to more than one item on the survey. There did not seem to be a pattern for respondents not responding to any particular question(s) or dimension(s) of the survey. Therefore, prior to the statistical analysis, the researcher decided to omit these surveys due to the risk they could affect the analysis of data and the overall results of the study. This left the study with 251 participant surveys for statistical analysis, or 65% of the original potential participants and 80% of the original surveys returned.

As per the authors' research, a principal component factor analysis was performed and confirmed the use of four factors located above the scree with eigenvalues of 10.234, 3.483, 2.943, and 2.492 respectively. The four factors explained 56.4% of the variance. This is also consistent with the nature of the variables in the data which consists of the four domains. Based on the last substantial drop in the magnitude of eigenvalues on the scree plot, it appeared that there could be a potential fifth factor with an eigenvalue of 1.420 (See Appendix F) (Cattell, 1966). Additional research could potentially confirm or negate this possibility. However, some

literature seems to support that a potential fifth factor could be discounted because of the subjectivity of the use of a Cattell scree plot as well as the intent here was to analyze subscales rather than individual items (Kaiser, 1970; “How2Stats,” 2014).

The four factors of the REMAS survey instrument (see *Table 4*) were previously defined (Arredondo Rucinski & Bauch, 2006). The first factor, “Reflective Dimensions” (REFLDMS), was loaded on and assessed by 10 survey items (1, 2, 3, 4, 5, 6, 7, 8, 9, 10). The second, “Defensive Behaviors” (DEFENBEH), loaded on 5 survey items (11, 12, 13, 14, 15). The third, “Ethical, Moral Dimensions” (ETHMORDM), loaded on 13 survey items (16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28), and fourth, “Ethical Priorities” (ETHPRIOR), loaded on 6 survey items (29, 30, 31, 32, 33, 34). Factor scores were created using the mean of all responses for the survey items in each subscale. Cronbach’s  $\alpha$  coefficients indicated strong internal consistency for the four subscales (greater than  $\alpha + 0.809$  for all subscales).

As a result of the strong internal consistency for the four subscales, an additional analysis to compare the loadings of factor scores versus the literature was performed. Maximum likelihood was used to estimate the factor loadings for the population surveyed (Tabachnick & Fidell, 2007). Bartlett’s Test of Sphericity confirmed that the instrument consisted of patterned relationships as it was significant ( $p < .05$ ). Thus, rejecting the hypothesis that the intercorrelational matrix involving the variables was an identity matrix. Consequently, factor analysis was feasible. In addition, the Kaiser-Meyer-Olkin Measure (KMO) of Sampling Adequacy confirmed this as it exceeded the cutoff (KMO = .865) (Kaiser, 1970). The extraction of four factors accounted for 56.4 % of the common variance which means that a four-factor

model was associated with a percentage of explained common variance of 56.4%. In addition, all of the factor loadings produced fell within the range of .3 and .9. Therefore, the results support the use of the instrument by the original author.

Table 4

*Factors, Items, Internal Consistency, and Descriptive Statistics for Variable Scales (N = 249)*

| Variable               | Variable description and survey items loading on the factor  | Factor Loadings | Range | Mean  | SD    |
|------------------------|--|-----------------|-------|-------|-------|
| REFLDMS                | Review actions in conversations?   | 0.661           | 1 - 6 | 4.96  | 1.091 |
|                        | Ask questions about assumptions underlying action?   | 0.674           | 1 - 6 | 4.48  | 1.136 |
|                        | Invite feedback about actions?   | 0.734           | 1 - 6 | 4.77  | 1.156 |
|                        | Respond to feedback from others with clarifying questions or paraphrased statements?               | 0.799           | 1 - 6 | 4.65  | 1.175 |
|                        | Ask questions about perspectives of others?  | 0.732           | 1 - 6 | 4.67  | 1.098 |
|                        | Ask questions about your own perspective?  | 0.581           | 1 - 6 | 4.40  | 1.201 |
|                        | Construct meaning in conversations?  | 0.634           | 1 - 6 | 4.86  | 1.012 |
|                        | Interpret and check interpretations of others?   | 0.67            | 1 - 6 | 4.63  | 1.063 |
|                        | Plan actions?  | 0.536           | 1 - 6 | 5.10  | 0.931 |
|                        | Describe plans and check plans with others?  | 0.485           | 1 - 6 | 4.71  | 1.220 |
|                        | Cronbach's $\alpha = 0.903$  |                 |       | 1 - 6 | 4.72  |
| DEFENBEH<br>(Reversed) | Become defensive when questioned by others?  | 0.691           | 1 - 6 | 4.70  | 1.194 |
|                        | Deny responsibility for decisions or actions you take?   | 0.702           | 1 - 6 | 5.45  | 0.872 |
|                        | Intentionally screen out criticisms, e.g., Use expressions like, "I don't remember saying that -"? | 0.707           | 1 - 6 | 5.31  | 0.946 |
|                        | Rationalize behaviors, e.g., "I only did that because -"?  | 0.754           | 1 - 6 | 4.73  | 1.166 |
|                        | Blame others, e.g., "I could not do that because policy/ past practice/ others/ forbid it-"        | 0.697           | 1 - 6 | 5.08  | 1.087 |
|                        | Cronbach's $\alpha = 0.826$  |                 |       | 1 - 6 | 5.05  |
| ETHMORDM               | View workplace decisions and actions as having moral and ethical dimensions?                       | 0.612           | 1 - 6 | 4.63  | 1.505 |
|                        | Ask the question: "Is this a moral action?"  | 0.936           | 1 - 6 | 4.42  | 1.488 |
|                        | Ask; "Is that an ethical decision?"  | 0.955           | 1 - 6 | 4.55  | 1.411 |

| Variable | Variable description and survey items loading on the factor  | Factor Loadings | Range | Mean | SD    |
|----------|--|-----------------|-------|------|-------|
|          | Ask: "What is the likely effect on marginalized or disadvantaged groups?"  | 0.615           | 1 - 6 | 4.24 | 1.296 |
|          | Examine decisions from an ethical or moral perspective?  | 0.767           | 1 - 6 | 4.86 | 1.142 |
|          | Ask: "What is likely to be the result of this action on fellow employees?"   | 0.749           | 1 - 6 | 4.34 | 1.288 |
|          | Ask: "What is the likely result on future practice?"   | 0.651           | 1 - 6 | 4.37 | 1.266 |
|          | Ask: "What is the likely result on policy?"  | 0.598           | 1 - 6 | 3.98 | 1.413 |
|          | Ask: "What is the likely result on clients or customers?"  | 0.612           | 1 - 6 | 4.49 | 1.313 |
|          | Ask: "What is the likely result on society in general?"  | 0.562           | 1 - 6 | 3.96 | 1.330 |
|          | Ask: "Is this decision right or wrong?"  | 0.733           | 1 - 6 | 5.19 | 1.043 |
|          | Exhibit moral or ethical motivation in the workplace (i.e., prioritize moral and ethical values relative to other values)?                           | 0.491           | 1 - 6 | 5.15 | 1.061 |
|          | Exhibit moral or ethical character in the workplace (i.e., demonstrate sensitivity, courage, persistence, and, implementation behaviors)?            | 0.314           | 1 - 6 | 5.30 | 0.935 |
|          | Cronbach's $\alpha = 0.929$  |                 | 1 - 6 | 4.58 | 0.940 |
| ETHPRIOR | Rate the needs of employees first and above future practice, policy, clients or customers, society in general, or persons from disadvantaged groups? | 0.39            | 1 - 6 | 3.75 | 1.512 |
|          | Rate practice first and above the needs of employees, policy, clients/customers, society in general, or persons from disadvantaged groups?           | 0.737           | 1 - 6 | 3.43 | 1.376 |
|          | Rate policy first and above the needs of employees, future practice, clients/customers, society in general, or persons from disadvantaged groups?    | 0.703           | 1 - 6 | 3.23 | 1.366 |
|          | Rate clients/customers first and above the needs of employees, future practice, or persons from disadvantaged groups?                                | 0.506           | 1 - 6 | 4.02 | 1.387 |

(continued)

| Variable | Variable description and survey items loading on the factor   | Factor Loadings | Range | Mean | SD    |
|----------|---|-----------------|-------|------|-------|
|          | Rate the needs of society in general first, and above the needs of employees, future practice, policy, clients/customers, or persons from disadvantaged groups? | 0.783           | 1 - 6 | 3.18 | 1.214 |
|          | Rate the needs of persons from disadvantaged groups first and above those of employees, future practice, policy, clients/customers, or society in general?      | 0.707           | 1 - 6 | 3.70 | 1.237 |
|          | Cronbach's $\alpha = 0.809$   |                 | 1 - 6 | 3.55 | 0.967 |

An *independent-samples t test* was used to explore whether there was a significant difference in the reflective practices between teachers participating in peer coaching situations such as the Instructional Partnership Pilot and those teachers surveyed who were not participating in peer coaching situations. The *t* test analyzed the difference between the means of two groups, to determine whether the differences were significant. As a result, the study attempted to determine whether the difference of the two points could, or could not, be attributed to chance errors made in selecting the participants (Mertler & Charles, 2002). There was not a significant difference in the perceptions of peer coaching participants ( $M = 4.474$ ,  $SD = .65$ ) and the perceptions of non-participants ( $M = 4.548$ ,  $SD = .55$ );  $t(249) = -.968$ ,  $p = .334$ . These results suggest that the involvement of elementary school teachers in a peer coaching model such as the Instructional Partnership Pilot does not have a statistically significant effect on teachers' perceptions and reflective practice as compared to those surveyed that had not participated in peer coaching.

Pearson correlations were calculated to assess criteria-related validity between the four factors, REFLDMS, ETHMORDM, ETHPRIOR, and DEFENBEH (see Table 5). All correlations, with the exception of DEFENBEH, were statistically significant ( $p < .005$ ). REFLDMS and ETHMORDM had the strongest correlation ( $r = .507$ ). Normality was assessed by Q-Q Plots and homogeneity of variances assessed by Levene's Equality of Variances Test. Statistical significance was accepted at the  $p < .05$  level. The factor structure of the instrument and reliability of the instrument were determined to be valid and reliable as a tool to evaluate perceptions of reflective, ethical and moral decisions of elementary teachers (Arredondo Rucinski & Bauch, 2006).

Table 5

*Inter-Correlations between the Four Subscales: ETHMORDM, REFLDMS, DEFENBEH, and ETHPRIOR*

| Factors  | REFLDMS | ETHMORDM | ETHPRIOR | DEFENBEH |
|----------|---------|----------|----------|----------|
| REFLDMS  | 1       |          |          |          |
| ETHMORDM | 0.507*  | 1        |          |          |
| ETHPRIOR | 0.301*  | 0.346*   | 1        |          |
| DEFENBEH | -0.011  | -0.09    | -0.148   | 1        |

*Note.* \* indicates statistically significant at the  $p < .05$  level.

Additional analysis was conducted on the data, initially using a multivariate analysis of variance (MANOVA). A MANOVA is a method of testing a hypothesis that one or more independent variables, or factors, have an effect on a set of two or more dependent variables (Lund & Lund, 2013). The MANOVA was used to make comparisons within and between the survey population (Hinkle et al., 2003) to answer the research question, “Are there differences in the professional reflections of teachers involved in a peer coaching model such as the Instructional Partnership Pilot for one, two, or three years? The groups that participated in the peer coaching model for one, two, or three years were compared to the non-participating groups. However, when comparing the t-values to the standardized residuals, two extreme outliers emerged (participants #51 and #60). Once these two participants were removed and the analysis repeated, homogeneity was met, and all sub-scores were greater than 0.01. Therefore, the normality assumption was not violated, and the one-way MANOVA revealed a significant difference in teacher perceptions based on their length of participation in the IPP peer coaching model, Wilks’  $\Lambda = .917$ ,  $F(12, 640.563) = 1.78$ ,  $p < .05$ , partial  $\eta^2 = .028$ . Power to detect the effect was strong at .830. Thus, the second hypothesis of the study was confirmed.

When the MANOVA was implemented, Levene's Test of Equality of Error Variances was used. All sub scores, the four factors or domains from the survey, were greater than .01. As a result, the normality assumption was not violated. However, the test of between-subjects effects indicated that there was only a significant difference for the REFLDMS factor ( $F(3, 245) = 3.543; p < .05; \text{partial } \eta^2 = .042$ ) and ETHMORDM factor ( $F(3, 245) = 3.069; p < .05; \text{partial } \eta^2 = .036$ ). As a result a Tukey's HSD post-hoc test was used and showed that the mean scores for the REFLDMS factor as well as the ETHMORDM factor were statistically significantly different between two years in the IPP and three years in the IPP ( $p < .05$ ), and between two years in the IPP and zero years of participation ( $p < .05$ ). Initially, there was a statistically significant difference between two years in the IPP and one year in the IPP ( $p < .05$ ), but once the analysis was run again without the two previously mentioned outliers the post-hoc test did not denote a statistically significant difference between year two and year one. In addition, it could be suggested that during year two, an implementation dip may have occurred or teachers experienced a level of "burnout" for a variety of reasons.

In addition, the means for the homogeneous subsets were determined and denoted as the marginal means. The REFLDMS factor exhibited two years ( $M = 4.4477$ ), one year ( $M = 4.7667$ ), zero years ( $M = 4.7983$ ), and three years ( $M = 4.9267$ ). The ETHMORDM factor revealed two years ( $M = 4.259$ ), one year ( $M = 4.626$ ), zero years ( $M = 4.658$ ), and three years ( $M = 4.785$ ). The means for the DEFENBEH factor, which were reversed scored, and the means for the ETHPRIOR factor did not exhibit a significant difference. This could be attributed to the fact that defensive behaviors and ethical priorities are factors that are somewhat predetermined by one's personality and personal experiences that are not easily modeled. In addition, it should be noted that zero years had a much greater sample size than the other subsets. Therefore, even

though the mean values are similar for zero years and one year in the IPP, the difference in the sample size and any adjustments by the SPSS software may have led the zero year value to be significant and the one year value to not be significant.

### Summary of Survey Results

Following the analysis of the survey data from this study, there does not seem to be a difference in the perceptions and reflective practice of elementary school teachers that participated in a peer coaching model called the Instructional Partnership Pilot versus teachers from comparable school(s) that did not participate. This finding was supported by the finding that there were no significant statistical differences ( $p > .05$ ) between participants in a peer coaching model and non-participation among the four factors of the REMAS survey instrument. However, among those that did participate in a peer coaching model such as the Instructional Partnership Pilot for one or more of its initial three years, there were statistically significant differences between the length of participation by years for both the reflective factor and the ethical moral factor.

### Summary

This chapter presented the findings of the research study, a summary of the data collection procedure, a description of the survey results, and a report of the findings. The study evaluated whether or not peer coaching participation or absence of participation may have influenced the reflective perceptions of participants. Based on the data from the study, there was not a significant difference in the reflective perceptions of the surveyed elementary teachers that participated in peer coaching for three years or less compared to those that had zero years of participation. The study analyzed whether the length of participation in a peer coaching model such as the Instructional Partnership Pilot seemed to impact the self-perception of teachers'

reflective practices and may have a potentially positive impact on student learning. The hypothesis suggested that there was a correlation between the participation in the amount of time in the Instructional Partnership Pilot and the reflective practices of teachers. The data revealed that while there was an initial increase in the reflective practices of the elementary teachers involved in the Instructional Partnership Pilot, year two data seemed to reflect an implementation dip and potential setback for the implementation of a peer coaching model.

The final chapter of the study presents a discussion of the results, answers the research questions guiding the study, and presents potential implications for further research. The discussion presents the significant relationships between the reflective perceptions of the teachers and the implications for professional and instructional practices for future research. In addition, the concluding chapter presents recommendations for further research.

## DISCUSSIONS AND CONCLUSIONS

As the responsibility of preparing every child for college or career readiness increases, the role and instructional responsibilities for classroom teachers have become more challenging than ever before. Peer coaching seems to provide opportunities to meet this increasing challenge by valuing the individual and collective expertise and experience of all classroom teachers. With peer coaching, professional development opportunities include: collaboration, informal observations, non-threatening feedback, deliberate discussions, and reflection. However, the pieces do not necessarily occur in sequential order, and in a number of instances occur multiple times during the process.

The *Standards for Professional Learning* (Learning Forward, 2011) encourages teachers to become active and collaborative participants in their own professional learning and to determine whether the professional learning is benefitting their instructional practices. This stance on professional learning blends with peer coaching as they share a common vision that values peer influence, collaboration, dialogue, reflection, and non-evaluative feedback by seeking the best instructional practices for implementation in the classroom (Hirsh, 2007; Learning Forward, 2011). More specifically, as reflection prior to, during, and following instruction becomes a fundamental aspect of a teacher's repertoire or cognitive habits, the potential may increase for a direct benefit to instructional practices, peer relationships, and ultimately student learning and achievement (Arredondo Rucinski, 2009; Reiman & Thies-Sprinthal, 1993). This type of emphasis on reflective practice forms the conceptual foundation for the Instructional Partnership Pilot (IPP) peer coaching approach used in Alabama. The IPP

was built on the belief that reflective practice is requisite for supporting as well as for sustaining innovation and instructional practices (Knight, 2007, 2011c; Gassenheimer, 2012, 2013).

This chapter includes a restatement of the research questions, a summary of the results, a discussion of the results, and the answers for the research questions. The following research questions were used to guide the study: (1) Do public elementary school teachers involved in a peer coaching model such as the Instructional Partnership Pilot perceive that peer coaching effects student learning? (2) Are there differences in the professional reflections of teachers involved in a peer coaching model as compared to the reflections of those teachers not involved in a peer coaching model? (3) Are there differences among the professional reflections of teachers involved in a peer coaching model for one, two, or three years?

#### Purpose of the Study

The purpose of this study was to examine how peer coaching may promote and encourage metacognition and reflective practice, may improve classroom instruction, and perhaps have a positive influence on student learning and achievement (Bandura, 1994). Furthermore, the study built on previous research focusing on professional learning communities (Poovey, 2012) by attempting to identify and measure the relationship between peer coaching and the teachers' self-reflections while participating in peer coaching. Lastly, the major sections of this chapter summarize the results and present a discussion of the implications of those results.

#### Statement of the Problem

According to Ingersoll and Smith (2004), during the last twenty-five years there has been an increasing interest in the amount of support, guidance, and orientation programs for beginning teachers. These programs are often referred to as induction programs and they frequently include mentoring or peer coaching. Ingersoll and Smith stated that historically the teaching profession

“cannibalizes its young” as new teachers usually practice in isolation from their teaching peers and are often assigned the most difficult students. This situation is frequently described as a “sink or swim, trial by fire, or boot camp experience” (Ingersoll & Smith, 2004, p. 28). Some literature asserts that as many as 50% of new teachers leave the profession within the first five years (Ingersoll & Smith, 2004; Joyce & Showers, 2002). Increasingly, school administrators are offering additional support to new teachers through induction programs to serve as a bridge from being a student of teaching to a teacher of students (Ingersoll & Smith, 2004). This applies Vygotsky’s theoretical framework of Social Cognitive Development which includes four stages within a zone of proximal development. These four stages include the use of dialogue, scaffolding on experience, individual assessment/observation, and basic premises of coaching such as the use of feedback (Vygotsky, 1978).

Recent literature and interest in targeting professional development, reflective practice, and collaboration has supported the need to offer a variety of induction and support programs for both novice and seasoned elementary classroom teachers; most specifically, through consistent collaborative planning time with structured interaction and dialogue (Arredondo & Rucinski, 1998; Gassenheimer, 2013; Ingersoll & Smith, 2004; Joyce & Showers, 2002; Knight, 2007, 2011a/b; Poovey, 2012). This study examined the hypothesized relationship between teacher participation in a peer coaching model and the levels of reflection of professional teachers, including increases in reflective judgment, trust among participants, and teaching skills.

#### Summary of Methods

The study involved 389 pre-kindergarten through sixth grade teachers within District 8 of north Alabama, as determined by the Alabama School Board of Education. Consent to access personnel was granted by the superintendent for each school district, and the principal of each

local school allowed the study to include their faculty. The study involved 389 participants which represented two groups: six schools having participated in the Instructional Partnership Pilot (IPP) within the last three years (2011-2014) and six schools having not participated in the IPP. The IPP participant group was further divided into three groups or classes of participants based on their length of participation: three years, two years, or one year. Schools with three years participation accounted for 64 participants, 31 participants had participated in the IPP for two years, and 52 had participated in the IPP for one year. However, 20 respondents from schools that had participated in the IPP did not indicate the length of their participation in peer coaching. One hundred forty six respondents had not participated in the IPP within the past three years.

The elementary school teachers used the Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) to assess their own levels of reflection. The REMAS is a 34-item survey instrument that uses a 6-point Likert type scale. The unit of analysis was the elementary teachers as the REMAS measured four factors or domains of reflection including: Reflective Dimensions (REFLDMS), Defensive Behaviors (DEFENBEH), Ethical and Moral Dimensions (ETHMORDM), and Ethical Priorities (ETHPRIOR).

#### Summary of the Findings

“The purpose of education is to develop the mind of the learner, whether the learner is a child or an adult” (Arredondo & Rucinski, 1998, p. 300). Literature suggests that the development of the adult learner and instructional practices can be accelerated and improved through the use of reflective practices such as those that together comprise peer coaching. Dewey (1933) argued that reflective thinking moved people from routine thoughts and actions toward reflective and calculated actions that supported the opportunity to continue ongoing

improvement or professional development (Dewey, 1916, 1933; Finlay, 2008). However, Schön (1983, 1987) emphasized that to be considered a skilled practitioner an individual must be reflective beyond a simple debriefing session that follows a lesson because isolated efforts usually produce isolated results and improvement. Peer coaching seems to provide a structure, support, and opportunity for teachers to collaborate, dialogue, and reflect on their instructional practices in a non-evaluative setting with the potential for sustained positive results (Schwab, 1969; Schön, 1983, 1987; Van Manen, 1977).

The quantitative data from the Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) measured the self-perceptions of the participants. The survey data provided information so that the researcher could answer the research question: Are there differences in the professional reflections of teachers involved in a peer coaching model as compared to the reflections of those teachers not involved in a peer coaching model? Based on the data produced during the study, the data did not confirm more in-depth reflections by those that had participated in peer coaching. However, the mean scores of the self-perceptions seemed to be high for both sets of participants. Furthermore, an independent *t*-test was used to explore whether a statistically significant difference existed between those that had participated and those that had not participated in peer coaching. The selective, convenience sample of 389 pre-k through sixth grade teachers revealed that the self-perceptions of elementary teachers participating in peer coaching such as the Instructional Partnership Pilot (IPP) did not confirm a statistically significant difference between teachers that had participated in the IPP for three years or less ( $M = 4.474$ ,  $SD = .65$ ) as compared to teachers that had not participated in the IPP ( $M = 4.548$ ,  $SD = .55$ ).

There are some potential reasons for this absence of a statistically significant difference. First, based on the results of the REMAS, the self-perceptions by both groups are relatively high and seem to indicate that both groups believe that their members individually and collectively reflect on and discuss their instructional practices. This could be a result of both groups having successful professional learning communities established that had initiated an effort to value, collaborate, and discuss student learning prior to the survey. Second, Fullan (2001) as well as Learning Forward (2011) argued that educators need three to five years for an instructional or professionally supportive approach to become effective and potentially sustained. It should be noted that the IPP peer coaching model had been implemented for less than three years at the time of the administration of the REMAS survey. More specifically, the importance of bridging the “knowing-doing gap” was emphasized because teachers need time accompanied by opportunities to reflect and deepen their understanding and address problems associated with instructional practices (Fullan, 2001; Learning Forward, 2011). Third, as previously noted, each of the six schools that had not participated in peer coaching may have already established a professional learning community which shares a common vision and goal(s) with collaboration and discussions related to their students’ achievement data accompanied by a collective purpose of learning for all students (DuFour, 2004). Furthermore, the reviewed literature supports the idea that professional learning communities improve the quality of collaboration and instruction throughout the faculty (Fullan, 2014). Fourth, as described by Barkley (2010), peer coaching can be viewed as a sub-structure that falls under the umbrella of a professional learning community. For example, professional learning communities consist of collaboration, reflection on teaching, discussion of teaching practices, and problem solving, but peer coaching also includes using a partnership or equal status approach using small groups to amplify opportunities to reflect on

experience through structured dialogue, classroom observation, non-evaluative feedback, and habitual reflection (Foltos, 2013a; York-Barr, Sommers, Ghere, & Montie, 2006). Both professional learning communities and peer coaching opportunities require a high level of commitment accompanied by a level of trust and respect from and among the participants (Barkley, 2010; Knight, 2004, 2005).

The survey data provided information so that the researcher could answer the other research question: Are there differences in the professional reflections of teachers involved in a peer coaching model such as the Instructional Partnership Pilot for one, two, or three years? Based on the data produced during the study, the answer was yes, as year two seemed to be a possible implementation dip as from year one and year three. In addition, based on the analysis, the reflective factor and the ethical-moral factor exhibited a difference between zero years and two years with zero years being the stronger of the two. This could be a result of the school not experiencing the desired amount of academic growth quickly. It could also be a result of a resistance of the teachers to move from traditional instructional practices to best instructional practices that include ongoing collaboration between teachers. Such an internal issue could also be a product of stress between the teachers and the instructional peer coach or between the teachers and the principal. Either way, an implementation dip seems to develop as a school begins to move toward sustained change as they attempt to use the best instructional practices for their students' learning.

The surveyed participants of peer coaching revealed that the self-perceptions of teachers participating in peer coaching for three years had a level of significance for the Reflective domain or factor ( $p = .012$ ) and zero years participation ( $p = .037$ ). The Ethical Moral domain or factor revealed a statistically significant higher score for three years participation in peer

coaching ( $p = .026$ ) as well as for zero years of participation in peer coaching ( $p = .037$ ). From the statistical data attained from the REMAS surveys, thus providing support for the idea that a positive relationship exists between two years and three years participation in peer coaching and the perceived reflective perceptions of peer coaching participants. There was no statistically significant relationship between the other REMAS factors or domains and respondents who participated in peer coaching for the other lengths of participation mentioned.

The statistical correlations are in two of the four domains or factors, Reflection and Ethical Moral Dimensions. The connections within the Reflective domain are with two years participation in peer coaching. The Reflective domain embodies a basic level of reflective practice, and the domain requires teachers to consider the input or feedback from other teachers. In response, the teacher(s) may review their instructional and classroom management practices in an attempt to move toward the use of the best instructional practices which in turn maximizes student learning. In addition, the reflective domain encourages teachers to examine their own perspectives as well as the constructive feedback from others.

A positive relationship exists between the Ethical Moral domain and two of the studied lengths of participation in peer coaching, three years and zero years. The Ethical Moral Priority domain relates respondents' reflective practice to their professional duty and personal responsibility as well their development of virtue or moral character. This domain relates to a higher level of reflection as it is suggested that virtues and moral abilities are not inherent. Instead, they may be obtained and mastered through practice and experience (Northouse, 2004). The statistical evidence that supports the reflective perception in the Ethical Moral domain and the length of participation in peer coaching should encourage both educational leaders and teachers to support the idea that peer coaching can have a positive effect on the use of best

instructional practices and potentially enhance student learning through their individual and collective efforts. It may also be concluded that the much larger sample size of participants who did not participate in peer coaching could be the reason why zero years participants demonstrated such a high mean as well as statistically significant difference.

When considering the reflections of participants of peer coaching, the statistical evidence indicates that there may be an implementation dip between year one and year three. Fullan (2001) argued that an implementation dip is common after the first year when both performance and confidence tend to be lower as participants encounter new skills and new understandings. Fullan (2001) further suggested that all successful schools experience implementation dips as they continue addressing the needs of their students. During an implementation dip, people often experience a social-psychological fear of change as well as reality of any lack of skills to make the change successful. In addition, people often desire to retreat to previous practices during this time because it seems as if no progress is being made (Fullan, 2010). To offset any potential implementation dip, educational leaders may need to remember that change or improvement efforts are a process, not an event. Therefore, the educational leader and peer coaching participants may want to make intentional efforts to research, plan, and provide the requisite amount of training and support for all teachers throughout the implementation as well as afterward (Fullan, 2001). For example, peer coaching such as the IPP has adopted the slogan “go slow to go fast” because positive change often requires time and the acceptance of potential setbacks as the instructional partner helps encourage, support, and guide the teachers and the faculty (Gassenheimer, 2013). Furthermore, in some cases such as Jenkins Elementary in Lawrenceville, Georgia, the implementation of a vision may result in a loss of staff. This school

experienced a loss of 68 teachers in the first two years prior to experiencing marked instructional improvements (Fullan, 2001; Kotter & Whitehead, 2010; Learning Forward, 2011).

While this study did not find a statistically significant difference for teacher reflection level between year one and year two, there was evidence to support statistically significant growth between two years and three years of participation in peer coaching. Therefore, based on the statistical means, educational leaders can be confident in the use of peer coaching as the faculty makes a more concerted effort with its professional learning community through the use of teachers observing each other, providing non-evaluative feedback, and reflecting on whether current instructional practices are producing the desired student learning results.

The demographic data provided by respondents revealed applicable perceptions for educational leaders working to create peer coaching situations. The information supplied by the respondents revealed that 167 of the 313 teachers (53%) had not participated in peer coaching in the three most recent year time period. These data are of concern because they suggest that this is a missed opportunity for horizontal and vertical collaboration, reflection, and planning among the faculty. The data revealed an unbalanced sampling of genders: men (7%), women (92%), no response (<1%). Teachers between the ages of 22 and 29 had the highest participation rate at 18%, and a range of 11% was found between the highest and lowest participation rates among the age of participants. However, 10.2% did not respond. This leads the researcher to believe that the majority of the faculties surveyed are less experienced in number of years in the profession. This can have both a positive and a negative impact as younger teachers are often more open to new ideas and may possess more current pedagogical knowledge, but veteran or seasoned teachers have an abundant amount of invaluable practical knowledge. As a result, both bring important things to the table to share.

The demographic data presented an additional perspective in relation to the grade level or content area taught by participants of peer coaching. The information revealed that respondents teaching in the primary grades (pre-k through grade 3) had the highest peer coaching participation rates at 59.9%, while peer coaching participation rates for intermediate grades (grades 4-6) showed a participation rate of 27.5%. This dramatic difference in participation when compared to primary and intermediate teachers' participation in peer coaching is troubling. While the number of primary teachers in a given school may be greater due to a smaller pupil to teacher ratio, educational leaders may determine that there is a need to increase the amount of peer coaching opportunities for the intermediate teachers. In addition, the peer coaching participation rate of resource teachers was 11.4%. This group of resource teachers included teachers who teach an area of specialty such as art, music, librarian, collaborative education, or physical education. While the academic and instructional expectations for these teachers is different from a regular classroom teacher, more schools are beginning to use the resource teachers for remediation as well as to provide additional small group instruction. As a result, educational leaders may wish to consider how to increase the involvement of resource teachers in peer coaching opportunities.

#### Study Limitations and Delimitations

This research study included a few limitations. One potential limitation was that survey participants may have intentionally or unintentionally not answered all of the questions on the survey. Surveys not completed were not used in the study or in the analyses. A second limitation was that those surveyed may not have provided honest answers to all questions. However, the researcher had to assume that all responses provided were genuine. A third limitation was that the study was designed around research questions and results that were limited to the area of peer

coaching. The results from the study provided information about teachers' perceptions of their reflective practices linked to peer coaching and the relevance of the length of participation in such a model, however teacher perceptions may not be the same as reality. A fourth limitation was that as the researcher progressed through the data collection and analysis, he noticed that the schools that had not participated in peer coaching already possessed an established professional learning community at their school. Consequently, without probing, their level of collaboration, a common vision and goals, and reflective practice was undeterminable. The fact that these schools had an established PLC in place may have affected the results.

Delimitations of the research study included that the study was a selective, convenience sample limited to grades Pre-Kindergarten through grade six teachers in District 8 in north Alabama. As a result, the study may only be generalized to the pre-k through six grade teachers in the specific participating schools. During the data collection, the researcher contacted the district superintendents and principals in the elementary schools in the designated district to guarantee the responses would only be attained from certified teachers that teach within the requested specialty area.

#### Implications for Educators

While noted previously, the role of classroom teachers has shifted from a knowledge provider to a facilitator who guides and supports student learning (Oolbekkink-Marchand, 2006; van Eekelen, Boshuizen, & Vermunt, 2005). Simultaneously, the requirement and expectation for teachers to help all students to meet the mandated standards for each grade level has undoubtedly increased the level of stress experienced by teachers. The results of this study as well as recent literature support the concept that for classroom teachers to meet the instructional needs of their students, teachers need to consistently reflect upon their instructional practices

through collaborative professional development and coaching opportunities which include multiple levels of complexity and rigor.

This particular study did not find a statistically significant difference between those that had not participated in peer coaching and those that had participated in peer coaching for three years or less; however, the study seemed to support that when peer coaching is afforded adequate planning, time, and non-evaluative feedback, a pattern of growth is probable following a potential implementation dip in year two. The Instructional Partnership Pilot (IPP) seems to have been an appropriate approach for pushing through any potential implementation dip associated with change and sustaining implementation of best instructional practices. The IPP approach changed from using a content area specialist such as reading coach to using that role as a professional development coach that supports teachers across the curriculum by providing professional development opportunities and structured interactions for individual teachers, small groups, and whole faculty reflection.

As previously stated, the goal of peer coaching is for all teachers to become more effective classroom practitioners and problem solvers through reflection and collaboration, but it also includes some additional benefits to the professional environment. First, peer coaching offers new insights into classroom instruction and student learning such as colleagues visiting each other's classrooms. Through this non-evaluative approach, teachers often receive new ideas as well as opportunities to encourage or even question the instructional strategies noticed. Second, it seems to strengthen the collegial relationships among grade level, content areas, and the faculty as a whole as teachers have open, non-evaluative discussions about current versus best instructional practices. Third, teachers seem to experience a decrease of feelings of

isolation. Fourth, the literature suggests that teachers experience a sense of connection in and to one's work and school (York-Barr, Sommers, Ghere, & Montie, 2006).

Educational leaders who are mindful of the importance of building a sense of community and trust with their faculty or professional learning community may find their teachers more open to change and collaboration. This peer coaching approach begins with time and opportunities to plan and dialogue together as grade level or content area teams. Next, the faculty can begin increasing the dialogue and planning in a vertical fashion that includes multiple grade levels. This allows all participants to see what others are doing inside the school as well as to see the "big picture." Once such opportunities establish a sense of trust, teachers begin visiting each other's classrooms informally as well as to observe specific instructional practices or areas. However, it is crucial that any feedback offered to the observed teacher(s), grade level(s), or whole faculty be non-evaluative and based on evidence. The instructional partner in the IPP helps to facilitate all these steps while also assisting teachers with discerning any contradictions between theory, practice, feedback, and the needs of their students. Lastly, as teachers begin making reflective practice and the use of best instructional practices a part of their daily work, we hope to see the desired impact of improved student learning and increased mastery of the standards.

This targeted effort toward reflection and collaboration through peer coaching can also produce additional opportunities for teacher peers to collaborate and reflect. One, schools can form a "survivor group" for teachers who are not only new to the profession but also to include those who are new to the school or school district. This initiates a sense of community while also providing a safe environment for newcomers to adapt to the school. Two, grade levels can both horizontally and vertically collaborate, observe, and discuss current instructional practices. This

type of peer coaching can weave the instructional practices and reflective practice of multiple classrooms and grade levels together. Three, faculties can implement the use of instructional rounds. With this approach, the teachers observe in each other's classrooms and record what evidence is present that relates to a pre-determined problem of practice such as student engagement. Following a lengthy collaborative discussion about what evidence was observed in the classrooms visited, the observers can attempt to determine patterns of behavior, and results related to the problem of practice.

In addition, this study used a selective, convenience sampling of six elementary schools that had participated in peer coaching and six elementary schools that had not participated; however, the findings and recommendations may only be generalized to the schools surveyed. These results and recommendations may be applicable to other elementary school administrators in Alabama and across the United States where there is an emphasis on high-stakes testing, mastery of standards, and a lack of funding. The initial step is to continue providing quality, on-going professional development that is not isolated or episodic. Unfortunately, such a continuous effort tends to be costly even for small faculties. These costs include: professional development materials, the securing of substitutes, transportation expenses, and food expenses. Second, the researcher believes that school leaders should continue to encourage teachers to spend time observing in other classrooms within the same school in a non-evaluative manner. This promotes a unified and supportive effort of long-term reflective practices by providing time during the school day and after school for teachers to enhance or broaden their perspective of the school's instructional practices.

## Suggestions for Additional Research

The results of this research study can be used to implement professional development opportunities aimed at increasing the reflective practice of teachers as well as potentially impact student learning in a positive manner. During the course of the study, additional questions surfaced that possessed the potential, when answered, to further the understanding of any relationship between participation in peer coaching and the reflective practice of teachers. In addition, these questions may promote additional reflective practices in teachers both individually and collectively as well as establishing the use of best instructional practices as a priority.

The researcher suggests a future study be conducted using the Reflective, Ethical, and Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006) for all participants of the Instructional Partnership Pilot (IPP) prior to beginning the peer coaching model, following the completion of each year of participation, and at the onset of each new academic year. This information and approach would potentially provide a situation in which the researcher(s) could compare the pre and post perceptions of participants over a variety of data points in time. However, with the potential of having many data points, it is suggested that an on-line method of implementing the REMAS survey be considered to assist with collecting data and ensuring that the study is more manageable for the researcher. In addition, the information provided from this additional research may provide direction about teacher perceptions of their reflective practices, and how they change after participating in the IPP and additionally how the length of participation impacts their perceptions. Furthermore, this may also add to the depth of understanding related to any potential implementation dip as well as promote potential strategies to manage such a dip.

This study may be replicated within other State of Alabama School Board Districts or in other states that use peer coaching models in order to determine any generalizations that may be made among the schools surveyed in District 8 and whether these may apply within other areas in the State of Alabama and in other states. The researcher also recommends that the qualitative portion of the survey be expanded to include additional information such as the length or number of years that a participant has been teaching. The amount of experience teachers possess in their current school might also provide an interesting perspective. Furthermore, the qualitative portion may allow inquiry about which aspects of peer coaching participants find offer the most support.

Consequently, a study evaluating the reflective practices among middle and high school teachers participating in peer coaching such as the IPP might prove beneficial in determining how peer coaching impacts teachers' reflective practices as well as student learning at the secondary education level. This idea of surveying middle and high schools may potentially provide the unique opportunity to survey teacher self-perceptions in some of the prek-12 schools that serve students ranging from pre-K through grade 12. Over the course of several years, such data could provide a substantial amount of instructional and achievement information that can inform instructional decisions at elementary, middle, and high school levels.

### Conclusions

As literature supports, one of the most important factors in student learning and achievement is the classroom teacher (Hattie, 2009). In response to the growing responsibility and accountability of teachers, classroom teachers find themselves in the position of needing continuous professional learning and support to meet the expectations for successful instructional practices and student learning. Literature supports the idea that teachers need on-going support, time for reflection, opportunities to observe their peers, and a need to receive non-evaluative

feedback through professional development opportunities such as peer coaching that values and builds on the expertise and experience of teachers (Coggins, Stoddard, & Cutler, 2003; Knight, 2011c; Gassenheimer, 2011, 2013). However, success is often not forged on a straight-line type of continuum. Instead, it can be messy as multiple ideas and strategies are constantly revisited and adjusted during implementation. Peer coaching seems to be a productive way to work through such instructional situations to guide teachers in efforts to improve instructional practices through their own collaboration and reflective practices.

Dewey (1974) once stated,

He [the teacher] has to see on his own behalf and in his own way the relations between means and methods employed and results achieved. Nobody else can see for him, and he can't see what he needs to see. (p. 151)

Unfortunately, teachers often find themselves working in professional environments that are isolated or supported through professional development that is often "...episodic, myopic, and meaningless" and lacks follow through and support (Darling-Hammond, Wei, Adree, Richardson, & Orphanos, 2009). Peer coaching allows the instructional partner and teachers to support classroom efforts by respectfully questioning each other's teaching practices and encouraging reflective dialogue with collaboration that challenges teachers to ensure that what the students are learning matches the instruction being provided. As a result of starting small with a supportive, structured, and teacher-driven focus, small successes with instructional improvements are promoted as teachers build on each other's expertise and experiences. The lasting benefit is that the efforts of continuous improvement can become a sustained part of the teacher's, grade or content level's, and school's reflective practice.

## REFERENCES

- Ackland, R. (1991). A review of the peer coaching literature. *Journal of Staff Development, 12* (1), 22-27.
- Argyris, C., & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey Bass.
- Arredondo Rucinski, D. (2005). Standards of reflective practice, pp. 77-90. *Standards for instructional supervision: Enhancing teaching and learning*. Larchmount, NY: Eye on Education.
- Arredondo Rucinski, D., & Bauch, P. (2006). Reflective, ethical, and moral constructs in educational leadership preparation: effects on graduates' practices. *Journal of Educational Administration, 44*(5), 487-508.
- Arredondo Rucinski, D., Franco, J., Nocetti, V., Quierolo, P., & Daniel, G. (2009). Conceptual change among teachers involved in educational reform. *International Journal of Leadership in Education, 12* (2), 156-169.
- Arredondo D. E., & Rucinski, T. T. (1998). Using structured interactions in conferences and journals to promote cognitive development among mentors and mentees. *Journal of Curriculum and Supervision, 13*, 300-327.
- Arredondo, D. E. & Rucinski, T. T (1994). Using the workshop approach in university classes to develop student metacognition. *Innovative Higher Education, 18*(4), 273-288.
- Baer, R. A., Smith, G. T., & Allen, K. B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*, 191-206.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior*, 4. New York: Academic Press, pp. 71-81.
- Barkley, S.G. (2010). *Quality teaching in a culture of coaching*. Lanham, Maryland: Rowan & Littlefield Education.
- Bentzen, M. M. (1974). *Changing schools: The magic feather principle*. New York: McGraw-Hill.

- Berman, P., & McLaughlin, M. (1975). *Federal programs supporting educational change, Vol. IV: The findings in review*. Santa Monica, CA: The Rand Corporation.
- Bowman, C. L., & McCormick, S. (2000). Comparison of peer coaching versus traditional supervision effects. *The Journal of Educational Research*, 93, 256-261.
- Bryk, A., Camburn, E., & Louis, K. S. (1999). Professional community in Chicago Elementary Schools: Facilitating factor and organizational consequences. *Educational Administration Quarterly*, 35, 251-781.
- Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, 245-276.
- Coggins, C.T., Stoddard, P. & Cutler, E. (2003). *Improving instructional capacity through field-based reform coaches*. The Bay Area School Reform Collaborative. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychology Bulletin*, 112(1), 155-159.
- Collier, S. T. (1999). Characteristics of reflective thought during the student teaching experience. *Journal of Teacher Education*, 50(3), 173-181.
- Costa, A., & Garmston, R. (1994). *Cognitive coaching: A foundation for renaissance schools*. Norwood, MA: Christopher-Gordon.
- Conley, S. Bas-Isaac, E., & Scull, R. (1995). Teacher mentoring and peer coaching: A micro political interpretation. *Journal of Personnel Evaluation in Education*, 9, 7-19.
- Creswell, J. (2012). *Educational research* (4<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Education.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W., & Plano-Clark, V.L. (2011). *Designing and conducting: Mixed methods research* (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage.
- Crilley, K. M., Good, G. Kohler, F. W., Shearer, D. D. (1997). Effects of peer coaching on teacher and student outcomes. *The Journal of Educational Research*, 90 (4), 240-250 31-36.
- Daudelin, M. W. (1996). Learning from experience through reflection. *Organizational Dynamics*, 24(3): 36-48.

- Darling-Hammond, L., Wei, R., Adree, A Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. Retrieved from [http://www.learningforward.org/docs/pdf/nsdcstudy\\_2009.pdf](http://www.learningforward.org/docs/pdf/nsdcstudy_2009.pdf).
- Delaney, J., & Arredondo, D. (1998). Using collegial coaching and reflection as mechanisms for changing school culture. Paper presented at the annual meeting of the University Council for Educational Administration, St. Louis, MO.
- Devaney, K., & Thorn, L. (1975). *Exploring teacher centers*. San Francisco: Far West Laboratory for Educational Research and Development.
- Dewey, J. (1916). Experience and thinking. Democracy and education. Retrieved November 10, 2013 from University of Vermont: <http://www.uvm.edu/rsenr/employment/Readings%20for%20Interns/Dewey%20-%20Experience%20and%20Thinking.pdf>.
- Dewey, J. (1933). *How we think*. New York: Bibliolife, LLC.
- Dewey, J. (1974). *John Dewey on education: Selected writings*. R. D. Archambault (Ed.). Chicago: University of Chicago Press.
- Dufour, R. (2004). What is a professional learning community? *Educational Leadership*, 61 (8), 6-11.
- Eby, M. A. (2000). Understanding professional development. In A. Brechin, H. Brown and M.A.
- Eby (eds.) *Critical practice in health and social care*. London: Sage.
- Evans, J. F., & Policella, E. (2000). Changing and growing as teachers and learners: A shared journey. *Teacher Education Quarterly*, 55-70.
- Finlay, L. (2008) *Reflecting on 'Reflective practice'*. Retrieved from Nov. 27, 2013 from <http://www.open.ac.uk/cetl-workspace/cetlcontent/documents/4bf2b48887459.pdf>.
- Foltos, L. (2013). Peer coaching: Changing classroom practice and enhancing student achievement. Retrieved from <http://www.edlabgroup.org/sites/default/files/documents/peercoachinglf.pdf>.
- Foltos, L. (2013). *Peer coaching: Unlocking the power of collaboration*. Thousand Oaks, CA: Corwin Press.
- Fontana, Andrea and Frey, James H. (2000) The interview: From structured questions to negotiated text. In N.K. Denzin and Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp.645-672), (2nd ed.). Thousand Oaks, CA: Sage.

- Foulger, T. (2005). Innovating professional development standards.: A shift to utilize communities of practice. *Essays in Education*, 14, 1-14.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2014). *The principal: Three keys to maximizing impact*. San Francisco, CA: Jossey-Bass.
- Gallimore, R. & Tharp, R. (1990). *Teaching mind in society*. (pp. 175-205). In L. Moll (Ed.). [Vygotsky and education: Instructional implications and social applications of sociohistorical psychology](#). New York: Cambridge University Press.
- Garmston, R. (1983). Reflections on cognitive coaching. *Educational Leadership*, 50(2), 57-61.
- Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38 (4), 915-945.
- Gassenheimer, C. (2012). Executive vice president Cathy Gassenheimer on instructional partners. *Edleader 21*, 117. Retrieved from [http://www.spring.org.uk/the1sttransporthttp://community.edleader21.com/component/content/article/117?comments\\_page=3](http://www.spring.org.uk/the1sttransporthttp://community.edleader21.com/component/content/article/117?comments_page=3).
- Gassenheimer, C. (2013). Best practices for spreading innovation: Let the practitioners do it. *Phi Delta Kappan*, 95 (3), 39-43.
- Glaser, B.G. (1978). *Theoretical Sensitivity*. Sociology Press, Mill Valley, California.
- Glickman, C. D., Gordon, S.P., & Ross-Gordon, J. (2004). *Supervision and instructional leadership: A developmental approach* (6<sup>th</sup> ed.). Boston: Allyn and Backon.
- Gottesman, B. L. (2000). *Peer coaching for educators* (2<sup>nd</sup> ed.). Lanham, Maryland: Scarecrow Press.
- Greene, T. (2004). *Literature review for school-based staff developers and coaches*. Oxford, OH: National Staff Development Council.
- Guiney, E. (2001). Coaching isn't just for athletes: The role of teacher leaders. *Phi Delta Kappa*, 82 (10), 740-743.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to student achievement*. New York: Routledge.
- Hinkle, D., Wiersma, W., & Jurs, G. (2003). *Applied statistics for the behavioral sciences*. Boston: Houghton Mifflin Company.

- Hirsh, S. (2005). Professional development and closing the achievement gap. *Theory into Practice*, 44(1), 38-44.
- How2Stats. (2014, March 11). *Partial confirmatory factor analysis* [video file]. Retrieved from <https://www.youtube.com/watch?v=Ksi9zH5KCGY>.
- Huston, T., & Weaver, C. L. (2008). Peer coaching: Professional development for experienced faculty. *Innovative Higher Education*, 33(1), 5-20.
- Ingersoll, R.M., & Smith, T.M. (2004). Do teacher induction and mentoring matter? *NASSP Bulletin*, 88, 28-40.
- Joyce, B. & Showers, B. (1980). Improving in-service training: The messages of research. *Educational Leadership*, 37 (5), 379-385.
- Joyce, B. & Showers, B. (1982). The coaching of teaching. *Educational Leadership*, 40 (1), 4-16.
- Joyce, B. & Showers, B. (1996). The evolution of coaching. *Educational Leadership*, 53 (6), 12-16.
- Joyce, B., & Showers, B. (2002). *Student achievement: Through staff development* (3rd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Kaiser, H. F. (1970). A second generation little jiffy. *Psychometrika*, 35, 401-415.
- Knight, J. (2004). Instructional coaches make progress through partnership: Intensive support can improve teaching. *Journal of Staff Development*, 25, 32-37.
- Knight, J. (2005). A primer on instructional coaching. *Principal Leadership*, 5, 17-20.
- Knight, J. (2007). *Instructional coaching: A partnership approach to improving instruction*. Thousand Oaks, CA: Corwin Press
- Knight, J. (2011a). The coach and the evaluator. *Educational Leadership*, 69 (2), 10-16.
- Knight, J. (2011b). What good coaches do. *Educational Leadership*, 69 (2), 18-22.
- Knight, J. (2011c). *Unmistakable impact: A partnership approach for dramatically improving instruction*. Thousand Oaks, CA: Corwin.

- Kohler, F. W., Crilley, K. M., Shearer, D. D., & Good, G. (1997). Effects of peer coaching on teacher and student outcomes. *The Journal of Educational Research*, 9 (4), 240.
- Kotter, J., & Whitehead, L. (2010). *Buy-in: Saving your good idea from getting shot down*. Boston: Harvard Business Review Press.
- Kovic, S. (1996). Peer coaching to facilitate inclusion: A job-embedded staff development model. *Journal of Staff Development*, 17(1), 28-31.
- Learning Forward. (2011). *Standards for professional learning*. Oxford, OH: Author.
- Leggett, D. & Hoyle, S. (1987). Peer coaching: One district's experience using teachers as staff developers. *The Journal of Staff Development*, 8(1), 16-21.
- Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal*, 19 (3), 325-340.
- Lund, A., & Lund, M. (2013). *One-way MANOVA in SPSS*. Retrieved from <https://statistics.laerd.com/spss-tutorials/one-way-manova-using-spss-statistics.php>.
- Mertler, C. A., & Charles, C. M. (2008). *Introduction to educational research* (6<sup>th</sup> ed.) Boston: Allyn & Bacon.
- Murray, S., Ma, X., & Mazur, J. (2009). Effects of peer coaching on teachers' collaborative interactions and students' mathematics achievement. *Journal of Educational Research*, 102 (3), 203-212.
- National Center for Education Statistics. (2007-2008). [http://nces.ed.gov/pubs2009/2009324/tables/sass0708\\_2009324\\_t12n\\_03.asp](http://nces.ed.gov/pubs2009/2009324/tables/sass0708_2009324_t12n_03.asp).
- No Child Left Behind Act of 2001*, Pub. L. No. 107-110, § 1113 *et seq.* Retrieved from: <http://www2.ed.gov/policy/elsec/leg/esea02/107-110.pdf>.
- Nolan, J., & Hillkirk, K. (1991). The effects of a reflective coaching project for veteran teachers. *Journal of Curriculum and Supervision*, 7(1), 62-76.
- Northhouse, P.G. (2004). *Leadership: Theory and practice*, 3<sup>rd</sup> ed., London: Sage.
- Oolbakkink-Marchand, H.W. (2006). *Teachers' perspectives on self-regulated learning: An exploratory study in secondary and university education*. Leiden: Leiden University.
- Osterman, K. F. (1990). Professional practice: A new agenda for education. *Education and Urban Society*, 22, 133-152.

- Osterman, K. F., & Kottkamp, R. B. (1993). *Reflective practice for educators: Improving schooling through professional development*. Newbury Park, CA: Corwin Press.
- Paquette, M. (1987). Voluntary collegial support groups for teachers. *Educational Leadership*, 45 (3), 36-39.
- Parker, P., Hall, D. T., & Kram, K.E. (2008). Peer coaching: A relational process for accelerating career learning. *Academy of Management Learning & Education*, 7 (4), 487-503.
- Poovey, R.R. (2012). The relationship of teacher participation in professional learning communities to the perceptions of reflective practices of elementary school teachers (Doctoral dissertation). Retrieved from University of Alabama Libraries' Classic Catalog. (ua. 3311102).
- Raelin, J.A. (2000) *Work-Based Learning: The New Frontier of Management Development* New Jersey: Prentice Hall.
- Reiman, J. & Thies-Sprinthall. (1993). Promoting the development of mentor-teachers: Theory and research programs using guided reflection. *Journal of Research and Development*, 26, 179-185.
- Robb, L. (2000). *Redefining staff development: A collaborative model for teachers and administrators*. Portsmouth, NH: Heinemann.
- Robbins, P. (1991). *How to plan and implement a peer coaching program*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Rodriquez, G., & Knuth, R. (2000). Critical issue: Providing professional development for effective technology use. Pathways to School Improvement. Retrieved October 11, 2013, from <http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te1000.htm>.
- Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective thinking. *Teachers College Record*, 104 (4), 842-866.
- Schön, D. A. (1984). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schön, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.
- Schwab, J. (1969). The Practical: A language for curriculum. *The School Review*, 78 (1), 1-23.

- Siebert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of success. *Academy of Management Journal*, 44(2), 219-237.
- Seigel, P. H. (2000). Using peer mentors during period of uncertainty. *Leadership and Organization*, 21 (5), 243-253.
- Sharan, S., & Hertz-Lazarowitz, R. (1980). A group investigation method of cooperative learning in the classroom. In Sharon, S., Hare, P., Webb, C., Hertz-Lazarowitz, R. (Eds.), *Cooperation in education* (pp. 14-46). Provo, UT: Brigham Young University Press.
- Showers, B. (1982). *Transfer of training: The contribution of coaching*. Eugene, OR: Centre for Educational Policy and Management.
- Showers, B. (1984). *Peer coaching: A strategy for facilitating transfer of training*. Eugene, OR: Centre for Educational Policy and Management.
- Smith, A.T. (2008). Rethinking instructional coaching in terms of teacher change. *Washington Kappan*, 1 (2).
- Smyth, J. (1989). Developing and sustaining critical reflection in teacher education. *Journal of Teacher Education*, 40 (2), 2-9.
- Starnes, B., Paris, C., & Stevens, C. (1999). *The Foxfire core practices: Discussions and implications*. Mountain City, GA: Foxfire.
- Strother, D. B. (1989). Peer coaching for teachers: Opening classroom doors. *The Phi Delta Kappan*, 70 (10), 824-827.
- Supovitz, J., Sirinides, P., & May, H. (2010). How principals and peers influence teaching and learning. *Educational Administration Quarterly*, 46, 31-56.
- Swafford, J. (1998). Teachers supporting teachers through peer coaching. *Support for Learning*, 13 (2), 54-58.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston, MA: Allyn & Bacon.
- Tschannen-Moran, B., & Tschannen-Moran, M. (2011). The coach and the evaluator. *Educational Leadership*, 69 (2), 10-16.
- Tschannen-Moran, B., & Tschannen-Moran, M. (2010). *Evocative coaching: transforming schools one conversation at a time*. San Francisco: Jossey-Bass.

- Valencia, S. W., & Killion, J. P. (1988). Overcoming obstacles to teacher change: Direction from school-based efforts. *Journal of Staff Development*, 9 (2), 168-174.
- Valli, L. (1997). Listening to other voices: A description of teacher reflection in the United States. *Peabody Journal of Education*, 72 (1), 67-88.
- Van Eekelen, I.M., Boshuizen, H.P.A., and Vermunt, J.D. (2005). Self-regulation in higher education teacher learning. *Higher Education*, 50, 447-471.
- Van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6 (3), 205-228.
- Van Manen, M. (1991). *The tact of teaching. The meaning of pedagogical thoughtfulness*. London: Althouse Press.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wellington, B. (1991). The promise of reflective practice. *Educational leadership*, 48 (6), 4-5.
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School.
- West, L., & Straub, F. C. (2003). *Content-focused coaching, transforming mathematics lessons*. Portsmouth, NH: Heinemann and Pittsburgh, PA: University of Pittsburgh.
- York-Barr, J., Sommers, W.A., Ghere, G.S., & Montie, J. (2006). *Reflective practice to improve schools: An action guide for educators*. Thousand Oaks, CA: Corwin Press, Inc.
- Yost, D. S., & Forlenza-Bailey, A. M. (2000). The impact of a fifth year program on the leadership abilities of beginning teachers. *The Professional Educator*, 23 (1), 35-47.
- Zeichner, K. M., & Liston, D. P. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 57, 23-47.
- Zwart, R.C., Wubbels, T., Bergen, T., & Bolhuis, S. (2009). Which characteristics of a reciprocal peer coaching context affect teacher learning as perceived by teachers and their students? *Journal of Teacher Education*, 60 (3), 243-257.

APPENDIX A - SUPERINTENDENT CONSENT LETTER

Dear Superintendent,

My name is Brad Scott, and I am a graduate student conducting dissertation research in the Department of Leadership at The University of Alabama on *Perceptions of Elementary School Teacher Participation in Peer Coaching and Their Views of Reflective Practices*. I am requesting your permission to conduct this study with elementary teachers in your school district.

The purpose of this study will be to examine how peer coaching is used in North Alabama Elementary Schools to foster reflective practices within the work environment and to determine the type of peer coaching best encourages this practice. There will also be a comparative evaluation of elementary teachers who have participated in the Instructional Partnership Pilot in the last three years and those who have not participated in the Instructional Partnership Pilot in the last three years. The Instructional Partnership Pilot was designed with a peer coaching approach to improve instruction through small group reflective practices as well as school-wide reflective practices.

Participants are identified based on data provided by their local school system websites and/or the Alabama Best Practices Center. In order to be considered for participation, the educators must be employed in a North Central Alabama school system. The benefit of participating is the researcher will share the implications of the study with the participating schools. This information can be used to determine the professional growth areas of concern for the schools.

As participants, educators will be asked to complete a questionnaire on their reflective practices relative to decision making in the work environment. The survey should take no longer than 15-20 minutes to complete. At the end of each questionnaire is a section that asks some demographic information relative to participant experience in education and grade level taught. A copy of the survey is enclosed.

There are no known risks associated with completing and returning the survey or participating in the interview. Participation is voluntary. All information will be kept confidential, and the participants may withdraw from the study at any time with no further inquiries from the researcher. Should the participants choose not to remain confidential, they are, hereby, made aware of the nonconfidentiality risks associated with the inclusion of data in the final report.

Thank you in advance for your time and consideration. A follow up phone call to answer any questions will be provided within five days of this letter. If you agree to have your elementary school teachers participate, please send your approval in writing by email to [Bradley.scott@hsv-k12.org](mailto:Bradley.scott@hsv-k12.org) or by fax 256-428-7057 at your earliest convenience. This letter has also been mailed with a self-addressed and stamped envelope if you prefer.

Thank you again for your support of this research study.

Bradley A. Scott  
Graduate Student  
The University of Alabama  
Department of Educational Leadership  
307 Graves Hall  
Tuscaloosa, AL 35847  
(205) 348-7826

Bradley A. Scott  
101 Catherine Drive  
Owens Cross Roads, AL 35763

APPENDIX B - PRINCIPAL INFORMATION LETTER

Dear Principal,

My name is Brad Scott, and I am a graduate student conducting dissertation research in the Department of Leadership at The University of Alabama on *Perceptions of Elementary School Teacher Participation in Peer Coaching and Their Views of Reflective Practices*. I am notifying you, with the permission of your district's superintendent, that I plan to conduct this study in your school. His or her approval is enclosed with this letter.

The purpose of this study will be to examine how peer coaching is used in North Alabama Elementary Schools to foster reflective practices within the work environment and to determine the type of peer coaching best encourages this practice.

Participants are identified based on data provided by their local school system websites and/or the Alabama Best Practices Center. In order to be considered for participation, the educators must be employed in a North Central Alabama school system. The benefit of participating is the researcher will share the implications of the study with the participating schools. This information can be used to determine the professional growth areas of concern for the schools.

As participants, educators will be asked to complete a questionnaire on their reflective practices relative to decision making in the work environment. The survey should take no longer than 15-20 minutes to complete. At the end of each questionnaire is a section that asks some demographic information relative to participant experience in education and grade level taught.

There are no known risks associated with completing and returning the survey or participating in the interview. Participation is voluntary. All information will be kept confidential, and the participants may withdraw from the study at any time with no further inquiries from the researcher. Should the participants choose not to remain confidential, they are, hereby, made aware of the non-confidentiality risks associated with the inclusion of data in the final report.

Thank you in advance for your time and consideration. It is my intent to follow up with you by phone to set a date and time that I may meet with your faculty and provide them the survey. Enclosed in this packet are copies of the informed consent and a copy of the survey I would like to have completed. If you have any questions prior to my phone call, please feel free to call me at 256-679-7589 or email me at [Bradley.scott@hsv-k12.org](mailto:Bradley.scott@hsv-k12.org).

Thank you again for your support of this research study.  
Bradley

Bradley A. Scott  
Graduate Student  
The University of Alabama  
Department of Educational Leadership  
307 Graves Hall  
Tuscaloosa, AL 35847  
(205) 348-7826

Bradley A. Scott  
101 Catherine Drive  
Owens Cross Roads, AL 35763

APPENDIX C - PARTICIPANT INFORMED CONSENT LETTER

Bradley Scott, a graduate student at the University of Alabama, is conducting a research project on Peer Coaching/Peer Influence in North Alabama elementary schools. The sponsoring institution for this research is The University of Alabama.

The purpose of this study will be to examine how peer coaching is used in North Alabama Elementary Schools to foster reflective practices within the work environment and to determine if peer coaching encourages this practice. There will also be a comparative evaluation of elementary teachers who have participated in the Instructional Partnership Pilot in the last three years and those who have not participated in the Instructional Partnership Pilot in the last three years. The Instructional Partnership Pilot was designed with a peer coaching approach to improve instruction through small group reflective practices as well as school-wide reflective practices.

Potential participants are identified based on data provided by their local school system websites and/or the Alabama State Department of Education. In order to be considered for participation, the educators must be employed in an Alabama school system and be at least 21 years of age. The data will provide no personally identifiable information and will be held and maintained by the primary researcher in a locked file cabinet. The raw survey data will be maintained until the completion of the research, approximately 8 months, and then will be shredded by the primary researcher. The benefit of participating is the researcher will share the implications of the study with the participating schools. This may guide schools to determine the professional growth areas of concern and opportunities of growth for classroom instruction.

As participants, educators will be asked to complete a questionnaire on their reflective practices relative to decision making in the work environment. The survey should take no longer than 15-20 minutes to complete. At the end of each questionnaire is a section that asks some demographic information relative to participant experience in education and grade level taught.

There are no known risks associated with completing and returning the survey or participating in the interview. Participation is voluntary. All information will be kept confidential, and the participants may withdraw from the study at any time with no further inquiries from the researcher. You may skip any question that you do not prefer to answer. You may decide not to participate or to discontinue participation at any time without penalty. Your participation or non-participation will have no effect on your job or relationship with the school system.

If you have any questions about your rights as a person in a research study, call Ms. Tana Myles, the Research Compliance Officer of the University, at (205) 348-8461 or toll-free at 1-877-820-3066.

Should there be any questions, please contact the researcher at the phone number provided.

Thank you,  
Bradley A. Scott

By signing below, I confirm that I am over 18 years of age and agree to participate in the project of Peer Coaching by Bradley Scott in the University of Alabama, College of Education.

---

Printed Name of Participant

---

Participant Signature

---

Date

Bradley A. Scott  
Graduate Student  
The University of Alabama  
Department of Educational Leadership  
307 Graves Hall  
Tuscaloosa, AL 35847  
(205) 348-7826

Bradley A. Scott  
101 Catherine Drive  
Owens Cross Roads, AL 35763

APPENDIX D - PERMISSION TO USE THE REFLECTIVE, ETHICAL AND MORAL  
ASSESSMENT SURVEY CREATED BY DR. DAISY ARREDONDO RUCINSKI AND DR.  
PATRICIA BAUCH

From: Laura Jenkins [[LJenkins@emeraldinsight.com](mailto:LJenkins@emeraldinsight.com)]  
Sent: Thursday, December 15, 2011 3:05 AM  
To: Arredondo---Rucinski, Daisy  
Cc: '[adwalker@ied.edu.hk](mailto:adwalker@ied.edu.hk)'; '[hallinger@gmail.com](mailto:hallinger@gmail.com)'; '[rmp88@yahoo.com](mailto:rmp88@yahoo.com)'; '[dabryant@ied.edu.hk](mailto:dabryant@ied.edu.hk)'; Thomas Dark  
Subject: RE: Copyright for instrument published in JEA, REMAS (Arredondo Rucinski and Bauch, 2005)

Dear Professor Arredondo Rucinski,

Many thanks for your email; please allow me to introduce myself; my name is Laura Jenkins and I am the Rights Assistant here at Emerald Group Publishing. I am pleased to say that providing that your student references the material fully, this is absolutely fine; however, if the dissertation is published commercially in the future, permission will need to be cleared once more.

I hope that this answers your question, but should you have any further queries, please don't hesitate to contact me.

Kind Regards,  
Laura Jenkins  
Rights Assistant

[www.emeraldinsight.com](http://www.emeraldinsight.com)<<http://www.emeraldinsight.com>>

Emerald is a leading independent publisher of global research with impact in business, society, public policy and education.

Emerald Group Publishing Limited, Registered Office: Howard House, Wagon Lane, Bingley, BD16 1WA United Kingdom. Registered In England No. 3080506, VAT No.GB665 3593 06

APPENDIX E - REFLECTIVE, ETHICAL, AND MORAL ASSESSMENT SURVEY  
WITH REVISED DEMOGRAPHIC INFORMATION

## Appendix E: Reflective Ethical Moral Assessment Survey (REMAS)

Please Note: All responses will be kept confidential. After completing this survey please return it to the building administrator of your school. Thank you for your assistance in assessing program quality.

**PART I: REFLECTION.** Please mark the frequency with which you engage in the reflective action described for each item. For example, if you perceive that the activity is one in which you engage very often then you would put an X in the far right column (“6”); if the activity is one in which you never engage, please mark an X in the first column (“1”).

| Item. | While reflecting on activities and actions at work, how frequently do you - - - - ?  | Not at all<br>1 | 2 | 3 | 4 | 5 | Often<br>6 |
|-------|--|-----------------|---|---|---|---|------------|
| 1.    | Review actions in conversations?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 2.    | Ask questions about assumptions and underlying actions?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 3.    | Invite feedback about actions?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 4.    | Respond to feedback from others with clarifying questions or paraphrased statements?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 5.    | Ask questions about perspectives of others?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 6.    | Ask questions about your own perspective?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 7.    | Construct meaning in conversations?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 8.    | Interpret and check interpretations of others?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 9.    | Plan actions?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 10.   | Describe plans and check plans with others?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 11.   | Become defensive when questioned by others?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 12.   | Deny responsibility for decisions or actions you take?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 13.   | Intentionally screen out criticisms, e.g., Use expressions like, “I don’t remember saying that –“?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 14.   | Rationalize behaviors, e.g., “I only did that because –“?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 15.   | Blame others, e.g., “I could not do that because policy/ past practice/ others/ forbid it –“?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 16.   | View workplace decisions and actions as having moral and ethical dimensions?   | 1               | 2 | 3 | 4 | 5 | 6          |
| 17.   | Ask the question: “Is this a moral action?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 18.   | Ask; “Is that an ethical decision?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 19.   | Ask: “What is likely to be the result of this action on fellow employees?”   | 1               | 2 | 3 | 4 | 5 | 6          |
| 20.   | Ask: “What is the likely result on future practice?”   | 1               | 2 | 3 | 4 | 5 | 6          |
| 21.   | Ask: “What is the likely result on policy?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 22.   | Ask: “What is the likely result on clients or customers?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 23.   | Ask: “What is the likely result on society in general?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 24.   | Ask: “What is the likely effect on marginalized or disadvantaged groups?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 25.   | Examine decisions from an ethical or moral perspective?  | 1               | 2 | 3 | 4 | 5 | 6          |
| 26.   | Ask: “Is this decision right or wrong?”  | 1               | 2 | 3 | 4 | 5 | 6          |
| 27.   | Exhibit moral or ethical motivation in the workplace (i.e., prioritize moral and ethical values relative to other values)?                           | 1               | 2 | 3 | 4 | 5 | 6          |
| 28.   | Exhibit moral or ethical character in the workplace (i.e., demonstrate sensitivity, courage, persistence, and, implementation behaviors)?            | 1               | 2 | 3 | 4 | 5 | 6          |
| 29.   | Rate the needs of employees first and above future practice, policy, clients or customers, society in general, or persons from disadvantaged groups? | 1               | 2 | 3 | 4 | 5 | 6          |
| 30.   | Rate practice first and above the needs of employees, policy, clients/customers, society in general, or persons from disadvantaged groups?           | 1               | 2 | 3 | 4 | 5 | 6          |
| 31.   | Rate policy first and above the needs of employees, future practice, clients/customers, society in general, or persons from disadvantaged            | 1               | 2 | 3 | 4 | 5 | 6          |

|     |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|
|     | groups?   |   |   |   |   |   |   |
| 32. | Rate clients/customers first and above the needs of employees, future practice, or persons from disadvantaged groups?   | 1 | 2 | 3 | 4 | 5 | 6 |
| 33. | Rate the needs of society in general first, and above the needs of employees, future practice, policy, clients/customers, or persons from disadvantaged groups? | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. | Rate the needs of persons from disadvantaged groups first and above those of employees, future practice, policy, clients/customers, or society in general?      | 1 | 2 | 3 | 4 | 5 | 6 |

**PART II. DEMOGRAPHIC INFORMATION: Would you please provide the following information about yourself?**

35. Gender: \_\_\_\_\_ Female    \_\_\_\_\_ Male

36. Undergraduate Major:

37. Graduate Major:

38. Topic of specialization in doctoral dissertation/ or education specialist research project:

39. Leadership positions held during most of career:

40. Current position:

41. Age:

42. Number of years that your school has been a member of the Instructional Partnership Pilot (IPP):

43. Do you see or perceive an effect from participation in the Instructional Partnership Pilot (IPP) on student learning?

44. Please describe some of the effects from the participation in the Instructional partnership Pilot (IPP).

## APPENDIX F - SCREE PLOT

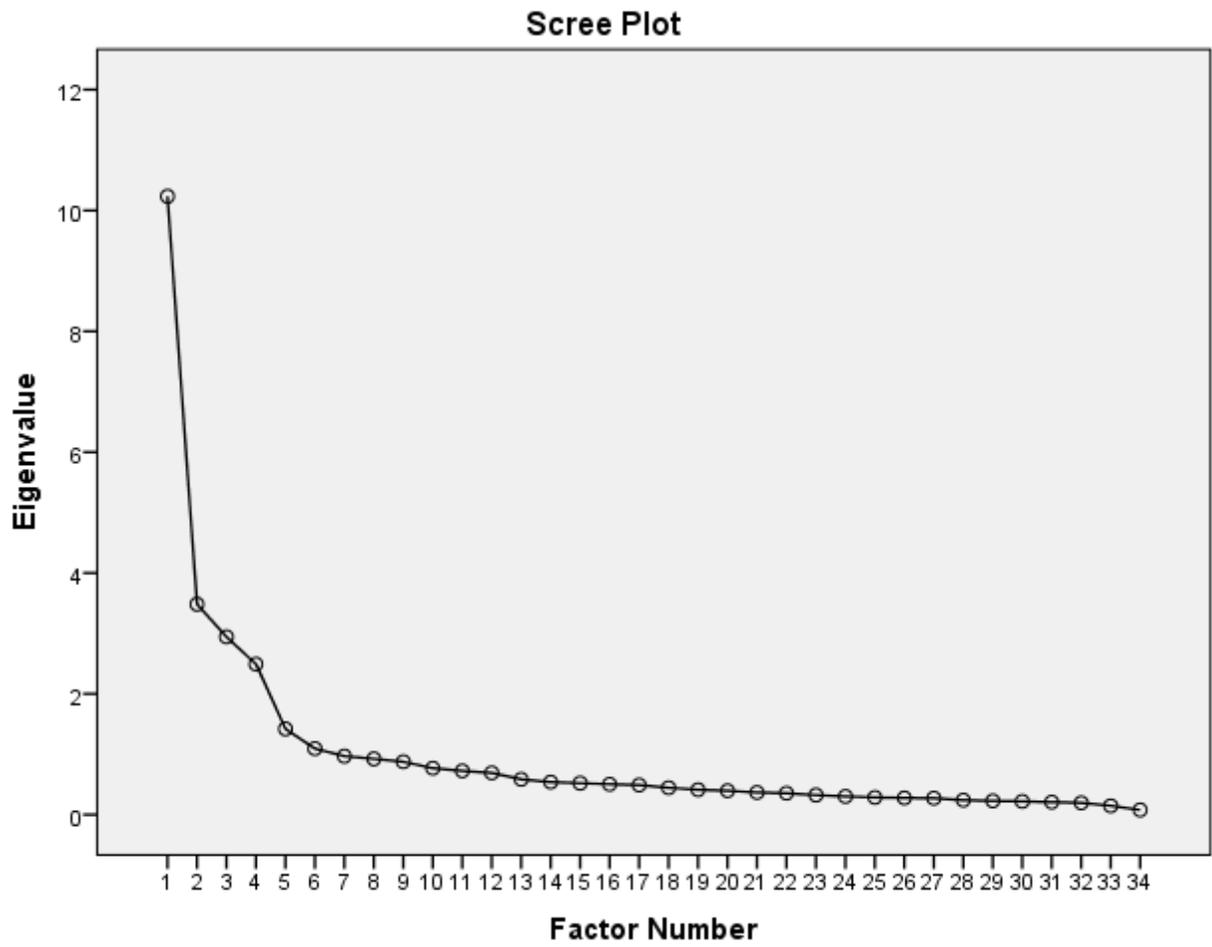


Figure 1. Scree Plot for Factors used in the Reflective Ethical Moral Assessment Survey (REMAS, Arredondo Rucinski & Bauch, 2006).