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The Impact of Reflective Dialogue Between a Mentor and a New Teacher on the New  
Teacher's Instructional Practices

Arcadia University  
Ed.D. Program in Education

Susan Slott Silver

A DISSERTATION  
IN  
EDUCATION

Presented to the Faculties of Arcadia University in Partial Fulfillment of the  
Requirements for the Degree of Doctor of Education

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Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements of Doctor of Education.

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## **Abstract**

In a quest to identify ways to support and enhance new teachers' instructional practices, varied types of new teacher induction mentoring programs have been established. In this qualitative study of new teachers in a suburban public school district, this researcher identified the influence of mentors, trained in reflective dialogic conversation, on new teachers during their 1st year of new teacher induction. This researcher considered the impact on new teachers' instructional practices by examining the reflective practices of both the mentor and the mentee. Instructional practices were observed through the lens of the 5 competencies of instruction as defined by the Danielson (2011) Framework for Teaching, Domain 3. Domain 3, Instruction, includes these competencies: (a) communicating with students, (b) using questioning and discussion techniques, (c) engaging students in learning, (d) using assessment in instruction, and (e) demonstrating flexibility and responsiveness. Four novice teachers and their mentors from the district agreed to participate in the study of the effect of an intensive mentoring program on new teachers' instructional practices. A positive connection between the reflective practices of these dyads and a shift in the new teacher participants' instructional practices were derived. Future considerations of study will include the effect of varied types of mentoring programs as they relate to new teachers' instructional practices and student achievement.

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Lastly, to the woman who taught me there are no unbreakable barriers, thank you for giving me a love of learning and a passion to “save” the world. I hope to model these qualities for my favorite little ones, Nora and Carson.



## Chapter 1: Introduction

In this dissertation, a qualitative study of new teachers in a suburban public school district, this researcher examined the influence of mentors, trained in reflective dialogic conversation, on new teachers during their first year of new teacher induction. For the purpose of this study, a *new teacher* will be defined as an individual new to the district with teaching experience or a beginning teacher with no teaching experience. Henceforth, both beginning teachers and new-to-district teachers will be referred to as new teachers. This researcher endeavored to identify the potential impact on new teachers' instructional practices by examining the reflective practices of both the mentor and the mentee. Instructional practices were observed through the lens of the five competencies of instruction as defined by the Danielson (2011, 2013) Framework for Teaching, Domain 3. Domain 3, Instruction, includes these competencies: (a) communicating with students, (b) using questioning and discussion techniques, (c) engaging students in learning, (d) using assessment in instruction, and (e) demonstrating flexibility and responsiveness.

This chapter includes background information on the goal of the study as it relates to primary research with new teachers, their mentors, and reflective practices. In addition, an explanation of the research problem and research questions, specific key terms, an overview of the methodology, and an interpretation of the relevance and significance of this proposed study are provided.

### Background

In a quest to support and improve the instructional practices of new teachers, school districts have developed varied forms of induction programs. In response to federal and state mandates as well as local teacher accountability requirements, there has

been increasing scrutiny of how a district supports its new teachers. The purpose of this study was to analyze the impact of one form of new teacher support—intensive mentoring—on new teachers’ instructional practices. Intensive or “educative” mentoring has been defined as having (a) “clear criteria for mentor assignment,” (b) “preparation of mentors focused on helping novices enhance student achievement through development of effective instructional practices,” and (c) “joint inquiry with mentors and mentees including observation and feedback” (Stanulis & Floden, 2009, p. 213). For the purpose of this study, *intensive mentoring* will be defined as a program that includes mentor training, continued professional development in the mentor–mentee relationship, mentor classroom observations of the mentee’s instructional practices, feedback sessions after each observation, and the added component of support for both the mentor and mentee in the enhancement of reflective practices.

How these practices are defined within this study is critical when examining the impact of these reflective practices on a new teacher’s instructional practices. Henceforth, *instructional practices* will be defined as:

The critical interactive work that teachers undertake when they bring complex content to life for their students. Teachers must provide clear directions and explanations; their work is enhanced through the skillful use of questioning and discussion and through the integration of assessment strategies into instruction.

(Danielson, 2007, p. 77)

Instructional practices are identified using the Danielson (2011) Framework for Teaching. Danielson (2013) defined her framework as:

A research-based set of components of instruction, aligned to the Interstate Teacher Assessment and Support Consortium (INTASC) standards, and grounded in a constructivist view of learning and teaching. The complex activity of teaching is divided into 22 components (and 76 smaller elements) clustered into four domains of teaching responsibility: (a) Planning and Preparation, (b) Classroom Environment, (c) Instruction, and (d) Professional Responsibilities. (p. v)

This researcher chose to focus on Danielson's domains in order to utilize a tool that is based on identifiable teaching practices and a common language to guide reflection (MacGregor, 2007). This researcher specifically chose Domain 3, Instruction, because the components of this domain are directly observable during a classroom lesson. These competencies are (a) communicating with students, (b) using questioning and discussion techniques, (c) engaging students in learning, (d) using assessment in instruction, and (e) demonstrating flexibility and responsiveness (Danielson, 2007, 2011, 2013).

The individual competencies in each of Danielson's (2013) domains are rated by a teacher's building principal. The rating scale rubrics range from 0–3, with 0 corresponding to a failing performance, 1 corresponding to needs improvement, 2 corresponding to proficient, and 3 corresponding to distinguished. A composite score of the elements within the domain indicates the performance level of that particular domain.

The research methods employed in this qualitative study are interviews, observations, and the collection of documents and artifacts. Four new teachers and their assigned mentors from a suburban school district agreed to participate in the study. Literature with a specific focus on evidence-based instruction is included to assist in identifying relationships among the three topics: new teacher induction, mentor

programs, and new teachers' instructional practices. For example, Ingersoll and Strong (2011) examined 15 studies in relation to induction and new teachers. They found a significant relationship between new teacher supports and their commitment and retention, teacher instructional practices, and student achievement (Ingersoll & Strong, 2011, p. 201). With regard to instructional practices, Ingersoll and Strong (2011) determined:

The majority of studies reviewed showed that beginning teachers who participated in some kind of induction performed better at various aspects of teaching, such as keeping students on task, using effective questioning practices, adjusting classroom activities to meet students' interests, maintaining a positive classroom atmosphere, and demonstrating successful classroom management. (p. 201)

Although the Ingersoll and Strong (2011) focused on studies of the relationship between mentoring and new teachers' instructional practices, they did not examine various types of mentoring or the reflective dialogue among mentors and mentees. Throughout this study, *reflective practices* will be defined as the moving through the process of experience, analyzing the experience, identifying and describing the problem or question, creating solutions for these problems or question, and investigating through intelligent action in a collaborative manner (Dewey, 1916, 1933).

### **Research Problem**

How does the added component of reflective dialogue affect teachers' instructional practice? In this study, the multiple characteristics of mentoring will be addressed, and the influence and benefit of mentoring as part of the induction process will be examined. The types of programming for the mentoring programs differ in the

time allocated for mentoring, the responsibilities given to the mentor, and how the relationship is ultimately defined (Hargreaves & Fullan, 2000; Washburn-Moses, 2010). Despite numerous research studies on mentoring, there remains a scarcity of information on the impact of mentoring and reflective practices on new teachers' instructional practices as they relate to the Danielson (2007, 2011, 2013) Framework for Teaching. As of July 2013, the Pennsylvania Department of Education (PDE) mandated the use of a rating tool for teacher evaluation. As part of the PDE Educator Effectiveness Program, Pennsylvania Code (2014) Title 22 Chapter 19.1 requires the Danielson (2011) tool for use by local educational agencies. With this in mind, this researcher examined new teachers' instructional practices as defined by Domain 3 of the Framework for Teaching before and after they engaged in dialogic reflection with their mentors.

### **Research Questions**

The overarching question of this study is the following: In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson (2011) Framework for Teaching? More specifically, how might collaborative reflection between mentors and their mentees influence new teachers' ability to communicate learning intentions with their students, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and demonstrate flexibility and responsiveness?

### **Context of the Study**

The selected site of this study was intentionally chosen to aid in an understanding of the research problem and the subsequent questions. In order to assess the impact of

intensive mentoring on new teachers, a district was chosen that included aspects of intensive mentoring in its new teacher induction program. The East School District (pseudonym) is a suburban district located in Pennsylvania. The district is comprised of four elementary schools, one middle school, and one high school and services three townships. The district boasts a diverse student population of approximately 3,396 students, with 30% economically disadvantaged students, 10% English language learners, and 11.1% students with Individualized Education Programs. Research was conducted at the middle school and three of the elementary schools.

The district serving as the context for this study has maintained a comprehensive induction program for the previous 3 years, which incorporates a mentoring component. The district's current mentor selection criteria, according to the district's 2014 *Mentor Handbook*, are the following:

1. One mentor teacher is assigned per inductee.
2. Whenever possible, the mentor teacher should teach the same grade level or subject area as the inductee.
3. Whenever possible, the mentor teacher should be from the same building and from a classroom near that of the inductee.
4. A satisfactory end-of-year evaluation is required for mentor teacher selection.
5. Mentor teachers have a Pennsylvania Level II certification and tenure.
6. Mentor teachers (a) are committed to education, (b) are willing to be good listeners, (c) demonstrate leadership skills, (d) understand the curriculum and subject matter, and (e) understand and are sensitive to the needs of the first-time teachers.

The current roles and responsibilities of the mentor for the district include the following, according to the district's 2014 *Mentor Handbook*:

1. The mentor must attend one mentor training session and orientation meeting.
2. The mentor must meet with the inductee regularly and plan for classroom observations, maintaining a log of meetings and topics discussed.
3. The mentor promotes the socialization of the inductee into the school setting and the community.
4. The mentor orients the inductee to classroom-management strategies.
5. The mentor guides and directs the inductee in the instructional process.
6. The mentor schedules two classroom visits. During the visit, the mentor will focus on classroom environment and instruction. After the visit, the mentor will meet with the inductee to discuss the inductee's current practices.
7. The mentor completes a program evaluation form at the end of Year 1.

As part of the mentoring component, experienced teachers receive mentor training in September of the new school year. Mentors work in a community of practice to discuss the following: the roles and responsibilities of a mentor, the characteristics of new teachers, and Danielson's (2011 Framework for Teaching).

As part of the district's mandatory new teacher induction program, new teachers participate in 4 days of summer training supporting situational practices, district initiatives, best practices, and reflective inquiry. The new teachers also participate in monthly 1.5-hour workshops. The director of curriculum and instruction; the director of technology; the director of student services; the director of science, technology, engineering, and math; the building principal; and the leader teacher of the English as a

Second Language team facilitate these workshops. Topics include differentiated instruction, integrating technology in the classroom, data analysis, teaching students with disabilities and English language learners, reflective inquiry practices, the PDE Educator Effectiveness Program (Pennsylvania Code, 2014), and the Danielson (2007, 2011, 2013) Framework for Teaching.

Participants were invited to participate in the study by a purposeful random sampling from the pool of newly hired teachers for the 2014-2015 school year. Such a sample was chosen in two stages. The first stage involved the identification of a group within a specific population (Creswell, 2009, 2013). In the case of this study, the group was the new teachers and their mentors. This group was invited from the broader population of teachers from the district involved in the study. This district had hired 13 new teachers. The new teachers for the 2014–2015 school year included:

- one high school biology teacher,
- one high school chemistry teacher,
- one high school physics teacher,
- one high school life-skills special education teacher,
- one middle school science teacher (eighth grade),
- one middle school special education teacher,
- one speech and hearing pathologist who will service the middle school,
- one prekindergarten teacher,
- one first-grade teacher,
- one English as a Second Language teacher,
- one elementary emotional support teacher,



- one gifted teacher, and
- one elementary librarian.

Each new teacher and his or her mentor received a recruitment letter via email from this researcher inviting them to participate in the study. The letter contained a well-defined explanation of the study's purpose and stressed the volunteer nature of their participation. Six pairs (mentor–mentee) of volunteers consented to participate in this study. The researcher selected a random sample from those who agreed to volunteer for this study.

With regard to this study, the consenting participants were invited to engage in an altered induction program. In addition to the current district's mentor and induction requirements and activities, the new teachers and their mentors were asked to participate in additional trainings and observations as part of this study. In order to understand the impact of dialogic reflection on teachers' instructional practices, this study included additional elements in regard to reflective practices. Each participant's mentor received additional training in structured practices for initiating and continuing reflective conversations with their mentees. These mentors attained training on the following topics: (a) the seven norms of collaboration, (b) mentoring roles, (c) questions for reflective practitioners and for planning conversation, and (d) classroom data gathering strategies (Dunne & Villani, 2007).

In addition, the mentor participants were asked to observe their mentees four times during the school year. Release time for mentors was provided in accordance with the East Education Association (pseudonym) union collective bargaining agreement. A standardized recording sheet was utilized to assist the mentor in identifying aspects of the

five components of Domain 3 of the Danielson (2011) Framework for Teaching. After each mentor observation, the mentee and mentor engaged in reflective conversation guided by reflective questioning and discussion techniques.

### **Rationale and Significance**

By the late 20th century, local, state, federal, and national educational systems had come to understand the importance of training and continued support for new teachers beyond preservice experiences (Carver & Feiman-Nemser, 2009; Ingersoll & Smith, 2004; No Child Left Behind Act [NCLB], 2002; Onchwari & Keengwe, 2010; Turley, Powers, & Nakai, 2006). However, new teacher induction programs have been inconsistent and vary in their delivery model (Carver & Feiman-Nemser, 2009; Ingersoll & Smith, 2004). In addition, mentoring for new teachers has not been well defined, and there is often a lack of training for the mentors, as well as limited time for mentor–mentee interaction (Carver & Feiman-Nemser, 2009; Ingersoll & Smith, 2004). New accountability measures for teachers focus on student achievement results on standardized assessments. Teacher evaluation measures have been mandated by federal and state policies to include observation and practice tools and statistical calculations gleaned from student achievement data to determine the effectiveness of a teacher’s instructional practices. New teachers, within their first year of teaching, must adhere to these evaluation measures. How new teachers are prepared for this process and supported in enhancing their instructional practices is essential.

**Effective teaching and how it is measured.** In response to the creation of educator effectiveness models for evaluation and supervision of teachers’ effectiveness, researchers have examined various observation tools, such as Marzano’s (2007)

description of the art and science of teaching and Danielson's (2007, 2011, 2013) Framework for Teaching. Most of the evaluation instruments include competencies and rubrics to measure new teacher effectiveness by observing and analyzing a teacher's planning and preparation, classroom environment, and instruction (Danielson, 2007, 2011; Learning Sciences International, 2014; Norman & Ganser, 2004; Strong, 2009). Pennsylvania has adopted the Danielson (2011) framework, along with student data, as the primary approach in evaluating teacher performance. For the purposes of this study, this researcher specifically utilized Danielson's (2011) Framework for Teaching as a lens to identify proficiencies for new teachers as a result of their mentoring experience. In the case of the district participating in this study, the Danielson (2011) evaluation framework was adopted in 2013, and the administrators and teaching staff had received ongoing professional development in the competencies of the framework for the 2013–2014 and 2014–2015 school years.

The Danielson Framework for Teaching was developed by Charlotte Danielson in 1996 to identify, assess, and enhance quality instruction (Danielson, 2007). The intent of the framework was to mirror the Praxis III exam criteria developed by the Educational Testing Service (Nougaret, Scruggs, & Mastropieri, 2005) along with the standards included in the Interstate New Teachers Assessment and Support Consortium and the National Board of Professional Teaching Standards. The Praxis III is a set of required exams taken by preservice teachers in order to obtain licensure to teach in the United States. In Danielson's (2007) summary of the structure of the evaluation tool, she described it as a research-based definition of quality teaching, a roadmap to navigating instructional practices, and a framework of accomplished teaching for new teachers.

Danielson (2011) recommended that the framework be used for preparing teachers, supervising student teachers, recruiting and hiring teachers, mentoring beginning teachers, developing professional learning, and evaluating teacher performance. Teacher performance is measured with regard to the Danielson (2011) framework through the exploration of four domains and 22 competencies. The four domains are divided into Planning and Preparation, Classroom Environment, Instruction, and Professional Responsibilities (Danielson, 2007, 2011, 2013; Nougaret et al., 2005). Within the four domains, specific elements and performance criteria are identified and defined.

Danielson's (2011, 2013) framework includes the element of reflection as a competency within the professional responsibilities domain. This teacher evaluation process demands the elimination of the one-way, top-down communication of past evaluations where the principal observed and rated lessons (Danielson, 2010).

Administrators and teachers work side by side to reflect on how the lesson aligned with the specific criteria attributed to the effective teaching competencies. Reflective practices are purported to enhance instruction, and as a result of this interaction, the teachers may identify qualities of their teaching practices to strengthen (Danielson, 2010).

**The meaning and role of reflective practices.** This researcher examined the impact on new teachers' instructional practices of mentors and mentees engaging in professional dialogue and critical reflection. But what are reflective practices, and why are they crucial to developing instructional skills? In the field of educational theory, the American philosopher, John Dewey, has been viewed by educational researchers as providing the clearest explanation of the definition of reflective practices and how they affect teaching (Rodgers, 2002). In order to grasp the complexities and rigor of the art of

reflective practices, this researcher defined the process in this study utilizing the work of Dewey (1933), as well as Rogers (2002), Schön (1987) and Brookfield (1995), all of who based their approach on Dewey's theory.

Rodgers (2002) organized Dewey's (1933) criteria for reflective thought into the following four components:

1. Reflection is a "meaning-making process that moves a learner from one experience into the next with a deeper understanding of its relationships with and connection to other experiences and ideas" (Rodgers, 2002, p. 845).
2. Reflection is a "systematic, rigorous, disciplined way of thinking, with its roots in scientific inquiry." (Rodgers, 2002, p. 845).
3. Reflection needs to happen in a community that has interaction with others.
4. Reflection "requires attitudes that value the personal and intellectual growth of oneself and of others" (Rodgers, 2002, p. 845).

Dewey (1933) stressed the importance of interaction between and among peers in order to enhance individual experiences. Rodgers (2002) stated, "Through interaction with the world we both change it and are changed by it" (p. 846). The purpose of reflection is to understand the relationships and links amid the experiences of self and others. Dewey (1933) defined education as "that reconstruction or reorganization of experiences which adds to the meaning of experience, and which increases [one's] ability to direct the course of subsequent experiences" (p. 41).

The stages of a reflective thinker as defined by Dewey (1933) are, in large part, based on the scientific method of inquiry. Dewey (1933) viewed the act of reflection as beginning with a human being interacting with his or her environment (i.e., a specific

experience), followed by analyzing some problematic aspect of the experience, identifying and describing the problem or question that arises, creating solutions for these problems or questions, and finally investigating the efficacy of the solution through intelligent action (Dewey, 1916, 1933). Dewey (1933) stressed the importance of collaboration with reflection—the significance of discussing one’s thinking with another—as opposed to thinking in isolation. Dewey (1916) stated:

To formulate [an experience] requires getting outside of it, seeing it as another would see it, considering what points of contact it has with the life of another so that it may be got into such form that he can appreciate the meaning. . . . One has to assimilate, imaginatively, something of another’s experience in order to tell him intelligently of one’s own experience. . . . A man really living alone (alone mentally as well as physically) would have little or no occasion to reflect upon his past experience to extract its net meaning. (p. 6)

In Dewey’s (1916) view, educators engaging in reflective practices profit from collaboration in a supportive community. Rodgers (2002) commented, “No teacher outgrows the need for others’ perspectives, experiences and support—not if they are interested in being what Dewey calls life-long students of teaching” (p. 857). In order for educators to adopt a reflective stance on their teaching, they need to possess and identify their own personal beliefs and attitudes. Dewey (as cited in Rodgers, 2002) also claimed that an individual must have four attitudes to embrace learning through reflection: (a) whole-heartedness, (b) directness, (c) open-mindedness, and (d) responsibility.

Consistent with Dewey’s understanding of reflective practices, Schön (1987) discussed reciprocal reflection-in-action between a coach and a student at the

postsecondary level. Schön (1987) argued that there are three key components of appropriate reflective dialogue: “It takes place in the context of the action, it makes use of actions as well as words, and it depends on reciprocal reflection-in-action” (p. 101).

Reflective practices are enhanced when they are developed while working in a “collaborative and supportive community” (Pedro, 2006, p. 130).

In his book, *Becoming a Critically Reflective Teacher*, Brookfield (1995) sought to understand the influence of reflection on teaching and the various levels of reflective practices. Brookfield advocated that teachers engage in critical reflection to develop fully into an effective teacher. To achieve this depth of thinking, scholars have recommended traveling through four lenses of reflection: (a) autobiographical or self-reflection, (b) students’ eyes, (c) colleagues’ experiences, and (d) theoretical literature (Brookfield, 1995; Cornish & Jenkins, 2012). The interaction of these four components results in a deeper, more critical level of cognition that promotes effective instructional practices.

In light of the demand for standardized tests and teacher accountability measures, the teaching profession presumably could move toward an exclusive focus on systematized curriculum and teaching practices focused on a single test. Dewey (1933) likely would be highly critical of this approach, for, in the contrast between “independent thinking versus ‘getting the answer’” (p. 44), the focus on standardized tests and systematized curriculum tends to promote the latter and precludes the development of critical thinking skills so essential for citizens in a democracy. The Dewey theory of teaching and learning is thus the antithesis of current reforms and test-based accountability. Though Dewey (1933) used the paradigm of a student learner, his philosophy of learning relates well to the teacher learner. Teachers should be asking

questions, no matter whether the answer or process satisfies the state or satisfies the inherent conditions of the problem (Dewey, 1933).

Teachers must move beyond the concept of the “banking model” of learning, where they are simply depositories for information (Freire, 1970/2005, p. 72). Teachers must become “recreators” and not “spectators” in the process of teaching and learning (Freire, 1970/2005, p. 85). With a shift to include a broader picture of a teacher’s instructional practices through the Danielson (2013) Framework for Teaching, it is possible to once again embrace the concept of the “well-educated” teacher (Ravitch, 2010, p. 16). Teachers as well as their students must learn how to “think, debate, and question” (Ravitch, 2010, p. 16). Through the evaluation process and review of the multiple competencies to evaluate their teaching, educators may begin the journey to learn from reflecting on their teaching practices.

## **Conclusion**

The advent of rigorous teacher accountability measures in 21st century public education will make support of new teachers a priority for administrators and colleagues. Research has indicated the need for an intensive induction program with the inclusion of mentors to affect positively new teachers’ instructional practices and their desire to remain in the teaching profession. Although research studies have explored new teacher induction and mentor programs, there are few studies on the mentor–mentee relationship in regard to dialogic reflection (McCrary & Mazur, 2010).

Through this research, this researcher attempted to identify the impact of dialogic reflection on the instructional practices of new teachers. Would collaborative reflection between mentors and their mentees help to improve instruction in the classroom?



Researchers must ask if mentors can guide new teachers “to progress through the stages of teacher development and to facilitate self-motivated professional growth” (Cornish & Jenkins, 2012, p. 139). If the dialogue between the experienced teacher and the novice teacher is at the highest level of reflection and this dialogue enhances instructional practices, greater emphasis on mentoring and training in reflective practices would be warranted for new teacher induction programs.

## **Chapter 2: Literature Review**

Considerable bodies of literature on new teacher induction and mentor programs have provided insights on the relationship between the two and their impact on effective instruction. This chapter presents areas of study related to both the type and quality of induction programs for new teachers and mentors. In addition, literature with a specific focus on quality instruction is included to assist in building a base of information to help draw connections among the three topics of new teacher induction, mentor programs, and new teachers' instructional practices. This review first discusses the history and definitions of new teacher induction. The multiple characteristics of mentoring then are addressed, and the influence and benefit of mentoring as part of the induction process are examined, with a particular focus on research on intensive mentoring programs. Intensive mentoring and reflective practices between the mentor and their mentee are defined. Finally, quality teaching and instructional practices are analyzed. With regard to determining the effectiveness of new teachers' instructional practices, literature on Danielson's (2007, 2011, 2013) Framework for Teaching is reviewed. The impact of specific support through induction and mentoring programs is examined, and its influence on new teachers' instructional practices is the focus of this analysis.

### **Historical Background**

The concept and creation of comprehensive programs to train and support novice teachers began as part of the school reform movement of the 1980s (Strong, 2009). The need to develop a support system was in reaction to increased student enrollment and high rates of teacher attrition (Bartlett & Johnson, 2010; Ingersoll & Strong, 2011; Kelley, 2004). It was believed that teachers left the profession because they were

unprepared for the challenges of teaching (Strong, 2009, Wang, Odell, & Schwille, 2008, Wong, 2004; Wong & Wong, 2012). As Kelley (2004) argued, “Historically, the education profession has ignored the support needs of its new recruits and has been described as ‘the profession that eats its young’” (p. 438). Teachers generally worked in isolation, and new teachers received little if any support (Strong, 2009; Wang et al., 2008; Wong, 2004; Wong & Wong, 2012). High levels of teacher turnover and problems with teacher quality were claimed to be a result of the lack of assistance from the school administration in teachers’ beginning years (Strong, 2009; Wang et al., 2008; Wong, 2004; Wong & Wong, 2012). As a result, “50% of new teachers will leave in their first 5 years of teaching” (Wong, 2004, p. 46). The purpose of new teacher induction had been to reduce the number of teachers leaving the profession in their first few years of teaching. In the early inception of new teacher induction programs, modest attention was given to improving teacher quality.

As a federal law, NCLB (2002) expanded the focus of new teacher induction to include teacher quality (Carver & Feiman-Nemser, 2009; Ingersoll & Smith, 2004; Onchwari & Keengwe, 2010; Turley et al., 2006). Legislation that was consistent with NCLB was then enacted by multiple states throughout the country; the state legislation included policies on teacher induction that incorporated teacher quality as one of the key goals (Bartlett & Johnson, 2010). Programs were to “support the kind of teaching demanded by today’s accountability reforms and ensure ‘highly qualified’ teachers for our nation’s schools” (Carver & Feiman-Nemser, 2009, p. 297).

A trend in the number of state-level policies requiring new teacher induction programs is evident. In the 1990, 40% of new U.S. teachers reported participation in a

formal induction program, but by 2008 participation rates doubled to 80% (Bartlett & Johnson, 2010; Ingersoll & Strong, 2011; Onchwari & Keengwe, 2010). Reflecting on the growing importance and role of induction programs, Ingersoll and Strong (2011) asserted,

The theory behind the induction holds that teaching is complex work, that pre-employment teacher preparation is rarely sufficient to provide all of the knowledge and skill necessary to successful teaching, and that a significant portion can be acquired only while on the job. . . . There is a necessary role for schools in providing an environment where novices are able to learn the craft and survive and succeed as teachers. (pp. 202–203)

In a study of induction programs for novice teachers, Bergeron (2008) examined a novice teacher's first year of teaching in an urban school, concluding:

Novice teachers must find their way through a new curriculum, establish routines for successful classroom management, adapt to a school's politics, come under the scrutiny of professional evaluation, and yet be accountable for [their] students' success on district and/or state assessments. (p. 4)

In addition to the multiple responsibilities that new teachers encounter in their first year of teaching, novices also face diverse challenges teaching in the urban environment. Such challenges include “fewer resources, larger class sizes, less experienced or prepared teachers, and higher dropout rates than those in more suburban communities” (Bergeron, 2008, p. 5). Bergeron emphasized the need to differentiate induction programs with respect to the needs and challenges of district demographics. As with the previously named researchers, Bergeron supported the idea that induction programs are essential to

support new teachers, and that it is the role of the individual school districts to formulate an effective induction program to meet their needs.

### **Components of Effective New Teacher Induction Programs**

New teacher induction programs vary from state to state and district to district with respect to the level of funding as well as the type of programs. States may offer fully funded programs or no funding at all for the districts to implement specified programs for new teachers. “Although there has been a general increase in ‘doing induction,’ there is great variety both within and across states as to the instrumentation and goals of induction” (Bartlett & Johnson, 2010, p. 847). There is often lack of focus and consistency in an attempt to support new teachers. “Induction can mean a 1-day workshop, a series of classes, an ongoing teacher-learning network, a mentor to work one to one with a new teacher, or some combination thereof” (Bartlett & Johnson, 2010, p. 848).

In discussing the components of well-developed models for teacher induction, Strong (2009) noted the objectives that drive the components of an effective program. He highlighted the New Teacher Center at the University of California, Santa Cruz. This program is a part of California’s state-mandated and state-funded Beginning Teacher Support and Assessment program (Strong, 2009). The Beginning Teacher Support and Assessment program exemplifies the objectives of a comprehensive induction program for beginning teachers. These objectives are as follows:

- To provide an effective transition into the teacher career for first- and second-year teachers in California

- To improve the educational performance of students through improved training, information, and assistance for participating teachers
- To enable beginning teachers to be effective in teaching students who are culturally, linguistically, and academically diverse
- To ensure the professional success and retention of new teachers
- To ensure that a support provider provides intensive individualized support and assistance to each participating beginning teacher
- To ensure that an individual induction plan is in place for each participating beginning teacher and is based on an ongoing assessment of the development of the beginning teacher
- To ensure continuous program improvement through ongoing research, development, and evaluation. (Strong, 2009, p. 10)

Similarly, Wong and Wong (2012) defined new teacher induction as a comprehensive program, as “the process of preparing, supporting, and retaining new teachers. . . . The purpose of induction is to acculturate new teachers to the responsibilities, missions, academic standards, and vision of the district” (p. 17). Wong (2004) was adamant that induction must be “a system-wide, coherent, comprehensive training and support process that continues for 2 or 3 years and then seamlessly becomes part of the lifelong professional development” (p. 47). Wong detailed specific components of an effective induction program based on the goals and objectives of the Beginning Teacher Support and Assessment program listed by Strong (2009). Wong (2004) recommended the following elements for quality induction programs:

- Begin with an initial 4 or 5 days of induction before school starts.

- Offer a continuum of professional development through systematic training over a period of 2 or 3 years.
- Provide study groups in which new teachers can network and build support, commitment, and leadership in a learning community.
- Incorporate a strong sense of administrative support.
- Integrate a mentoring component into the induction process.
- Present a structure for modeling effective teaching during in-services and mentoring. (p. 48)

Smith and Ingersoll (2004) included many of the same elements recommended by Wong (2004) in their findings of the necessary components of an effective induction program. However, these researchers included additional components that they maintained are required to create a comprehensive program: (a) strong administrative support with a campus coordinator, (b) a coaching component using trained coaches, (c) a networking structure for new and veteran teachers, (d) visits to demonstration classrooms, (e) a welcome center to help new teachers settle into their new community, (f) a bus tour of the community led by the superintendent, and (g) “a formative assessment process that helps the new teacher develop skills for student achievement” (Smith & Ingersoll, 2004, p. 33). Characteristics of new teacher induction programs have been developed with an emphasis on support in situational practices, instructional practices, and ongoing professional development.

Supporting new teachers in their endeavor to develop effective instructional practices is one of the objectives of new teacher induction. Research has focused on new teachers who have participated in an induction program and the quality of their teaching

practices (Capizzi, Wehby, & Sandmel, 2010; Moss, 2010; Wang et al., 2008). It is important to understand both how we define effective teaching practices and the impact of induction on effective teaching practices (Capizzi et al., 2010; Moss, 2010; Wang et al., 2008). Capizzi et al. (2010) measured effective teaching practices by “evaluating components of instructional delivery, classroom management skills, and student responses” (p. 192).

Current education policies have driven the shift to specific measurements of teacher quality. The federal grant program, Race to the Top, supports the utilization of multiple measures of teacher effectiveness, such as observation-based protocols and frameworks, as well as such measures of teacher performance as value-added scores computed from students’ standardized assessments (Mashburn, Meyer, Allen, & Pianta, 2013). In 2012, the Race to the Top program was developed by President Obama’s administration to encourage educational reform. The states that applied to participate in this grant program were required to develop durable and comprehensive plans in four principles of reform: (a) adopting rigorous standards and assessments that prepare students for success in college and the workplace; (b) recruiting, developing, retaining, and rewarding effective teachers and principals; (c) building data systems that measure student success and inform teachers and principals how they can improve their practices; and (d) turning around the lowest performing schools (“Race to the Top,” 2014).

The utilization of specific measures of a teachers’ instruction have become routine additions to the mandated state initiatives for teacher evaluation and accountability programs. In an effort to obtain quantifiable data to evaluate teachers’



performance, observation tools have been developed and researchers have begun to analyze their effectiveness.

### **Assessing Teachers' Instructional Practices**

In response to the use of teacher observation tools for evaluation of teachers' effectiveness, researchers have begun to examine various evaluation tools such as Marzano's (2007) art and science of teaching model and Danielson's (2011, 2013) Framework for Teaching. Both evaluation instruments claim to measure teacher effectiveness (Danielson, 2007, 2011, 2013; Learning Sciences International, 2014, Marzano, 2007, Mielke & Frontier, 2012, Norman & Ganser, 2004; Strong, 2009). According to the National Council on Teacher Quality (2012), several states (Arkansas, Illinois, Louisiana, New York, and Pennsylvania) have recommended Danielson's Framework for Teaching as their districts' teacher evaluation tool. In the case of the district invited to participate in this proposed study, the district adopted the Danielson evaluation framework in 2013.

The Danielson Framework for Teaching, developed by Charlotte Danielson in 1996, was created with the intent to categorize, assess, and improve quality instruction (Danielson, 2007). The intent of Danielson's structure was to mirror high-quality teaching standards in an attempt to define acceptable teaching practices. Danielson established this framework integrating the standards included in the Interstate New Teachers Assessment and Support Consortium, the National Board of Professional Teaching Standards, and the Praxis III Teacher Assessment created by the Educational Testing Service (Dunne & Villani, 2007; Nougaret et al., 2005). In Danielson's (2007) summary of the structure of the evaluation tool, she described it as a research-based

definition of quality teaching, a roadmap to navigating instructional practices, and a framework of accomplished teaching for new teachers. Danielson (2011) recommended that the framework be used for preparing teachers, supervising student teachers, recruiting and hiring teachers, mentoring beginning teachers, developing professional learning, and evaluating teacher performance. Teacher performance is measured with regard to the Danielson (2011, 2013) framework through the exploration of four domains and 22 competencies. The four domains are Planning and Preparation, Classroom Environment, Instruction, and Professional Responsibilities (Danielson, 2007, 2011, 2013; Kimball & Milanowski, 2009, Nougaret et al., 2005). Within the four domains, specific elements and performance criteria are identified.

Reliability and validity of an observation tool are key issues when examining results from these evaluation instruments. Observer rating training, length of observation, and manner of observation (videotaped or in person) are aspects that impact the outcome of this type of measure. In a study of observation procedures utilized by administrators, Mashburn et al. (2013) focused on the most effective ways to engage in the process. The researchers attempted to “compare the reliability and predictive validity of a teaching observation measure and explore other potential threats to validity using experimental conditions that represent different ways to fix observation length and presentation order” (Mashburn et al., 2013, p. 6). Their findings indicated that the operational procedures of the observation, both length of the observation and the order of the presentation, affect the validity and reliability of the scores.

Educator evaluations are increasingly including the use of observation tools as a response to education policies. The type of observation instrument, interrater reliability,

the nature of the observer training with the tool, the type of observation platform, and the length of the observation all impact the validity and reliability of the results.

In addition to the Danielson (2011, 2013) Framework for Teaching, teacher effectiveness and evidence of student achievement have been measured through the use of standardized test score results. Value-added data of standardized assessments are being employed to assess evidence of student achievement as it relates to teacher quality (Strong, 2009). The value-added model measures the teacher's impact on student learning by comparing the current school year's scores to the same student's previous year's scores on a given standardized assessment. Comparing these data uses a statistical technique to predict and measure individual student gains over a period of years (Kupermintz, 2003, p. 228). Currently, the PDE (2012) has determined that it will include, as part of a teacher's evaluation, a value-added measure of student gains on the state's standardized assessment, called the Pennsylvania System of School Assessment and Keystone Exams for English, Algebra I, and Biology. The Pennsylvania Value-Added Assessment System uses comparison data of students' performance from previous years and predicts the anticipated rate of growth. Teachers are to be evaluated on students' growth as an indication of student achievement. Both the Danielson (2011, 2013) framework and the Pennsylvania Value-Added Assessment System are major measurement tools for evaluation of new and experienced teacher performance for tested subjects such as reading, writing, mathematics, and science.

In studies of the use of standardized teacher evaluation tools for accountability, Harris, Ingle, and Rutledge (2014) and Kimball and Milanowski (2009) suggested (a) there is minimal connection between results of the evaluation and the value-added

performance scores attributed to teachers, and (b) principals' views often impact the outcome of the evaluation. Even when observation-based evaluation is standardized, Harris et al. contended that the principal's interpretation and specific usage of the tool, as well as the choice of tool, will influence the evaluation of teacher quality.

Kimball and Milanowski (2009) questioned the validity of the evaluation tool in light of the difficulty of identifying and substantiating acceptable user practices of these tools. In their study of 23 educational leaders, these researchers suggested that providing the evaluators with comprehensive rubrics and adequate training in the use of the evaluation tool may not be enough to assure that teacher ratings are confidently related to student achievement.

Several studies, however, have supported the use of an evaluation rubric for teachers. In a study of new teachers with and without educational backgrounds in traditional preservice courses, Nougaret et al. (2005) found that teachers with teacher training in instructional practices scored higher on their evaluations. The observation instrument used in their inquiry was the Danielson Framework for Professional Practice. Though the primary research question for the study centered on the performance levels of trained and nontraditional educated teachers, Nougaret et al. found a positive connection between measuring teacher effectiveness and the evaluation tool.

In a three-part study of the connection among teacher performance measures (value added), their ratings on the Danielson evaluation tool, and student achievement, Strong, Gargani, and Hacifazlioglu (2011) focused on the ability of the observer to identify an effective teacher using the four-domain framework. The researchers pointed out "the common methodological concerns about observational measures relate to

reliability and validity, size or number of the teaching sample needed, how the data is analyzed, and generalizability across grade level or subject matter (Strong et al., 2011, p. 368). Another concern is the reported inconsistencies in observer judgment of proficiency related to the four domains. Strong et al. attempted to identify the variables associated with observations of teaching videos including length of lesson, degree of observer training, size of participant pool, and interrater reliability. The findings of the three related studies indicated a need for observer training and a clear set of criteria for observation. While the results showed improved interrater reliability with trained observers, there was minimal accuracy with regard to the relationship between the rating scores and student achievement as defined by standardized test scores.

Since research in the field of teacher evaluation tools is in its infancy, clinicians, policy makers, and educators must continue to evaluate and utilize these tools with caution (Jones & Brownell, 2014). Factors affecting the observer's judgment in regard to the multiple competencies and the abundant factors impacting student achievement will influence the overall rating of teacher effectiveness. Since teacher effectiveness directly impacts student achievement, researchers and practitioners must ask how to support new teachers in their instructional practices in the face of current federal and state policy.

### **Improving New Teachers' Instructional Practices**

Wang et al. (2008) have examined the relationship between new teacher induction and improving effective teaching practices. They stated:

Although learning to teach occurs in multiple stages of a teacher's career, we focus on the teachers' first year because it is a crucial and problematic period for

teachers. . . . It has been found to shape teaching patterns and influence teacher retention. (Wang et al., 2008, p. 132)

In their view, induction programs should focus on improving teachers' learning opportunities and supporting new teachers' learning practices.

Several researchers have studied the need to improve teaching practices through induction (Cuddapah & Clayton, 2011; Moss, 2010; Onchwari & Keengwe, 2010; Wood & Stanulis, 2009). Moss (2010) used the term *constructivism* to define some models of induction programs. Such programs are based on a "constructivist epistemology, with its associated features of situated cognition, scaffolding, cognitive apprenticeship and reflection" (Moss, 2010, p. 44). Through reflective practices, developers of induction programs can define and craft an induction framework for teaching through "joint inquiry and reflection" among new teachers in their cohorts (Moss, 2010, p. 51). Moss argued that it is essential to train teachers to construct meaning from their experiences. Similar to Dewey's (1933) concept of learning through interaction with real-life experiences, Moss recommended that new teachers identify and reflect on their own experiences in teaching and learn from these experiences.

### **Mentoring as an Integral Ingredient in Induction Programs**

In a summary of multiple research perspectives, Wood and Stanulis (2009) defined a comprehensive induction program with a mentor component as "the multi-faceted process of teacher development and novice teachers' continued learning-to-teach through an organized, professional development program of educative mentor support and formative assessment" (p. 3). The development and implementation of new teacher induction programs entail comprehensive planning and consideration of these essential

elements. Multiple researchers have recommended mentoring as an essential component of quality induction programs (Bergeron, 2008; Iancu-Haddad & Oplatka, 2009; Kohlmeier, Saye, Mitchell, & Brush, 2011; Norman & Ganser, 2004; Orland-Barak, 2005; Strong, 2009).

In his book, *Effective Teacher Induction and Mentoring*, Strong (2009) contended, “These induction programs were designed to have mentor teachers assist and support novice teachers in their professional development” (p. 6). The recommendations gleaned from Bergeron’s (2008) study included a multifaceted support system to sustain the success of new teachers. Administrator–teacher interaction, professional development opportunities, and mentor–teacher relationships are critical aspects of new induction for urban novice teachers (Bergeron, 2008; Feiman-Nemser, 2001; Onchwari & Keengwe, 2009; Strong, 2009; Tillman, 2005; Wong & Wong, 2012; Yendol-Hoppey, Jacobs, & Fichtman Dana, 2009). Bergeron (2008) concluded, “An authentic and multilayered mentoring system contributed to the novice teacher’s success” (p. 25). Hence, much of the research points to the need to include a mentoring component in an effective induction program.

The terms *induction* and *mentor* often have been viewed as synonymous. In fact, mentoring is a key ingredient of an effective new teacher induction program, but it does not replace the latter (Onchwari & Keengwe, 2009; Wong & Wong, 2012). Mentoring programs differ in their approaches and their focus. “Mentoring’s early association with beginning teacher induction often led to a narrow view of mentoring as a form of temporary support to help novices cope with the demands of their 1st year of teaching” (Feiman-Nemser, 2001, p. 28). Mentoring is now viewed as entailing a more

comprehensive relationship between mentor and novice. “Situated in practice and in a relationship with an experienced educator, mentoring has the potential to foster powerful teaching and to develop the dispositions and skills of continuous improvement” (Feiman-Nemser, 2001, p. 28).

Feiman-Nemser (2001) and Strong (2009) have discussed the effective outcomes resulting from a certain kind of mentoring. Feiman-Nemser (2001) used the term *educative mentoring* to describe this approach in contrast to mentoring programs that “emphasize situational adjustment, technical advice, and emotional support” (p. 17). Feiman-Nemser constructed her theory from Dewey’s concept of educative experiences to describe an optimal learning process for mentees. Dewey’s theory (as cited in Glassman, 2001) emphasizes that learning is a social and interactive process; thus, there is a need to incorporate experiences in the learning process.

Strong (2009) cited Feiman-Nemser in his discussion of studies of how mentors should work with beginning teachers. Feiman-Nemser (2001) stated,

Educative mentoring rests on an explicit vision of good teaching and an understanding of teacher learning. . . . They interact with novices in ways that foster an inquiring stance. They cultivate skills and habits that enable novices to learn in and from their practice. They use their knowledge and expertise to assess the direction novices are heading and to create opportunities and condition that support meaningful teacher learning in the service of student learning. (p. 18)

Essentially, the purpose behind mentoring must be clarified, and the primary goal of mentoring should be to create a reciprocal relationship between mentee and mentor. The mentor must support and enhance new teachers’ instructional practices through authentic



discourse and collaborative interactions (Iancu-Haddad & Oplatka, 2009; Strong, 2009). How the various characteristics of mentor programs impact new teachers and the positive effects of these programs are topics of discussion in numerous research studies. The next section of this review focuses on the advantages of including a mentor for new teachers during their first year of teaching.

### **The Benefits of Mentoring in an Induction Program**

Some researchers have found that an inclusive mentoring program helps to improve retention, job satisfaction, and increase student achievement (Hallam, Chou, Hite, & Hite, 2012; Onchwari & Keengwe, 2010). Hallam et al. (2012) recognized the need for mentoring new teachers in the broad sense of novice support and maintained that an effective mentor–mentee relationship will indirectly impact student achievement by increasing teacher retention. Their study examined two contrasting models of mentoring, an on-site model and a district coaching model. Hallam et al.'s findings indicated a connection between in-school mentor–teacher pairings and a high rate of teacher retention. Most notable in these findings were the shared characteristics of effective mentoring extracted from the research questions. New teachers in the study reported the need for mentors with “necessary experience and knowledge to adequately support beginning teachers, including curriculum knowledge and teaching experience in the grade level taught by the mentee” (Hallam et al., 2012, p. 268). New teachers valued the collaborative professional learning teams and in-school mentors as ways to enhance relationships and support (Hallam et al., 2012). The importance of a strong relationship between mentor and mentee is clearly emphasized and identified as crucial to an effective mentoring outcome.

Other studies have shown the value of a more focused mentoring program, not just for teacher retention but also for improving teaching practices (Bartlett & Johnson, 2010; Moss, 2010; Onchwari & Keengwe, 2010; Stanulis & Floden, 2009). Several studies focused on how mentors enhance the teaching practices of new teachers through effective mentoring strategies. Moss (2010) detailed research on teacher education mentoring and induction models. Moss (2010) stated, “Mentoring provides a wide range of opportunities for mentors and mentees to engage in discourse communities around pedagogy and reflective thinking and the development of optimal mentoring relationships” (p. 44).

In their studies on the impact of mentoring and improving student achievement, Stanulis and Floden (2009) and Onchwari and Keengwe (2010) discussed teacher quality. Stanulis and Floden (2009) examined “the impact of a program designed to incorporate several features thought to be important for induction programs aimed at improving teacher quality in ways that link teaching to student engagement” (p. 112). They defined the three essential aspects of good teaching as “worthwhile content, excellent classroom management that engages students, and strong motivation and scaffolding of student learning” (Stanulis & Floden, 2009, pp. 114–115). In examining the outcome of new teacher evaluations of teaching practices, Stanulis and Floden found higher levels of effective teaching for new teachers with mentors. Onchwari and Keengwe discussed the importance of a personalized process in a mentor–mentee relationship. Similar to Stanulis and Floden’s findings, Onchwari and Keengwe’s study showed an improvement in the delivery of effective literacy practices for teachers who were paired with an experienced mentor.

## **Mentor Selection and Preparing Mentors**

There are many viewpoints on how to select and prepare effective mentors. The key notion is that quality teaching is an “indicator of excellence in multiple areas” (Wood & Stanulis, 2009, p. 6). In their research on current induction programs, Wood and Stanulis (2009) included inclusive standards utilized by Michigan State University in the selection process for mentors. The standards integrated in the Launch Into Teaching Through Comprehensive Induction program are the following, according to Wood and Stanulis:

- Provide quality instruction practice of 3 or more years.
- Apply a reflective approach to one’s own teaching.
- Have content knowledge and subject-based pedagogy.
- Commit to ongoing personal and professional growth.
- Have excellent interpersonal and communication skills.
- Have experience in teaching adult learners effectively.
- Show empathy toward the needs of novice teachers.
- Commit to the functions and processes of mentoring.

Several research studies examined the concept of adequately preparing experienced teachers for their role as mentors (Carver & Katz, 2004; Iancu-Haddad & Oplatka, 2009; Onchwari & Keengwe, 2010; Tillman, 2005; Turley et al., 2006; Wood & Stanulis, 2009). As a critical component of an effective mentoring program, the teacher selected to mentor a new teacher must have appropriate training in mentoring. In their study of mentors and novice teachers, Carver and Katz (2004) examined the issue of mentors’ responsibilities, as these would help to enhance the teaching practices of new

teachers. Carver and Katz (2004) stated, “This case challenges traditional conceptions of mentoring by suggesting that mentors can and should play a more direct role in helping novices reach acceptable levels of performance, particularly when they struggle on the boundary of acceptable practice” (p. 450).

Carver and Katz (2004) categorized the elements needed to guarantee an optimal environment to train mentors: “Mentors must have at their disposal a repertoire of clear and useable mentoring strategies, grounded in professional teaching standards that can be used for gathering formative data on novice teaching practice” (p. 460). They proposed that the following components must be in place:

(a) Workable strategies for assessing novices’ practices in relation to a set of public standards, (b) preparation and ongoing development to help mentor teachers learn to use these strategies in practice and to support them in dealing with challenging cases, (c) opportunities to learn how to give direct feedback to teachers and the authority to act based on professional understandings, and (d) a professional community that expects accountability from all its members. (Carver & Katz, 2004, p. 460)

Carver and Katz (2004) and Stanulis and Ames (2009) discussed the issue of quality mentors in new teacher induction programs and policy. They asserted that mentors need to evaluate the new teacher’s performance and provide adequate feedback to facilitate improved teaching practices.

In addition to the Carver and Katz (2004) study, Stanulis and Ames (2009) examined mentor training and the impact of this training on novice teachers’ teaching practices. Stanulis and Ames examined how a knowledgeable teacher was trained to

mentor through ongoing professional development in a district–university partnership. The researchers’ findings indicated specific and essential components needed to influence the new teacher’s learning practices. Stanulis and Ames (2009) explained the goal of developing the study was to “support experienced teachers in constructing mentoring practices that were educative” (p. 3). Stanulis and Ames sought to develop mentor training that incorporated ways that mentors could meet the needs of new teachers, as well as helping mentors to develop reflective thinking skills about their teaching.

Mentors need to be trained in how to advance effective teaching practices and cultivate new teacher development. This is the area in which researchers have claimed mentor programs usually fall short (Carver & Katz, 2004; Stanulis & Ames, 2009). Stanulis and Ames (2009) reported mentors struggle with “engaging in collegial conversation that involves goal setting, idea generation, open sharing, and active listening” (p. 7).

Carver and Katz (2004) identified a mentor who had difficulty advising a marginal teacher. The researchers concluded, “Although mentors in the local program are trained in the use of sophisticated formative assessment activities, their use is tempered by a complementary need to maintain trusting relationships” (Carver & Katz, 2004, p. 458). The mentors were fearful to evaluate their mentee in a desire to build a mentor–mentee relationship. Stanulis and Ames (2009) proposed that a mentor would need to be provided with adequate professional development to learn effective ways to facilitate new teacher learning. They identified some of the most important mentoring tools as learning to observe by looking for evidence, learning to hold critical conversation using conversation sentence starters, learning about mentoring as a practice to be studied and

learned, learning to confront difficult situations in order to move a beginning teacher's practice forward, learning to help beginning teachers find their own unique voice and principled reasons for teaching decisions, learning about research-based image of a vision of effective teaching, and learning about one's own practice as mentor (Stanulis & Ames, 2009, p. 9).

In the aforementioned studies, the researchers concluded that teachers must be afforded an opportunity to learn about the practice of mentoring. It is imperative that teachers understand that mentoring is a learned professional practice, which involves the study of how teachers learn, the ability to help one connect to one another in the process of learning, and the ability to engaged in reflective analysis of what was learned (Stanulis & Ames, 2009).

The findings in a study of beginning teachers' confidence before and after participation in an induction program supported the importance of mentoring (Turley et al., 2006). Specifically, Turley et al.'s study confirmed the role mentors play in supporting new teachers through intensive mentor training, as well as a "structured series of activities and events around the school and classroom community, close attention to planning, instructional delivery, and assessment of student work products, multiple opportunities for professional development, and an emphasis on reflective practices" (p. 38). Mentors and their mentees participated in collaborative endeavors and well-defined professional development opportunities. The new teachers of the quantitative study indicated their improved instructional practices over the 2-year period of participation. Developing and implementing a comprehensive mentor plan appears to be an essential component in supporting new teachers.

## **Types of Mentoring Programs**

Once a mentor is matched to a novice teacher, the type of programming for the mentoring experience differs in the time allocated for mentoring, the responsibilities given to the mentor, and how the relationship is ultimately defined (Hargreaves & Fullan, 2000; Washburn-Moses, 2010). In a study of diverse mentoring programs, Bartlett and Johnson (2010) compared intensive university-paired mentoring program models to minimally rigorous district-led programs. “The intensive mentoring model included instructional mentoring, mentor observation and feedback, and the analysis of student work with a university trained, partial-release mentor” (Bartlett & Johnson, 2010, p. 848). An analysis of the teaching practice data focused on the classroom atmosphere, instruction and content, management, and student engagement. This analysis yielded higher scores for teachers who participated in intensive mentoring programs (Bartlett & Johnson, 2010). The Bartlett and Johnson study supported Stanulis and Floden’s (2009) assumptions on the need for effective mentoring, which raises the issue of how to identify the appropriate mentor when determining a mentor–mentee pairing.

In studies of new teachers’ perceptions of mentoring and the need for specific criteria for mentor programs, the research determined that specific situations and training should be firmly in place before a mentoring program is implemented (Menon, 2012; White & Mason, 2006). “It is important that mentoring programmes be available upon entry into the profession and not three or four years later. . . . A selection process for mentors should be put in place, based on a set of criteria” (Menon, 2012, p. 229).

Wang and Odell (2002) described three types of perspectives underlying the various types of mentoring programs: humanistic, situated apprentice, and collaborative

inquiry. The humanistic perspective focuses on helping new teachers face new challenges, particularly with adequately dealing with personal problems, with the purpose of retaining them in the teaching profession (Wang & Odell, 2002). The mentoring programs before the passage of NCLB in early 2002 focused on this assumption. The concept of support was seen as more important than the role of dialogue in regard to mentoring. “New teachers, as beginners and learners, are in a vulnerable position with many pressing needs. For mentors working with new teachers, the lure of providing technical and emotional support can be especially seductive” (Carver & Katz, 2004, p. 450).

Wang and Odell (2002) defined the situated apprentice perspective as the need for mentors to provide technical support and information “to help novices adapt to the existing culture and norms of teaching” (p. 532). This view of mentoring involves helping teachers to understand the complexities of the school curriculum and classroom instruction. Wang and Odell (2002) shared Dewey’s understanding of learning in that “all knowledge and theories emerge from context and its use” (p. 495).

Beyond enhancing areas of curriculum and instruction for new teachers, mentors need to train in the critical collaborative inquiry perspective because it “encourages novices to pose questions and challenges related to existing teaching practices” (Wang & Odell, 2002, p. 532). This notion of mentoring expands on the situated apprenticeship perspective to enhance the teaching experience with collaborative and collegial discourse. Wang and Odell (2002) maintained that through critical conversations new teachers will improve their teaching practices in a culturally responsive manner. Yendol-Hoppey et al. (2009) had similar findings and determined that collegial discourse through a social



justice lens was essential in a mentor–mentee relationship. Yendol-Hoppey et al. espoused this social justice stance as a guiding force of mentors’ pedagogy and crucial for new teacher practice.

### **Communities of Practice**

A subset of the critical, collaborative inquiry in a mentoring program includes mentor–mentee cohort groups, sometimes referred to as *communities of practice* (Blair, 2008; Crafton & Kaiser, 2011; Cuddapah & Clayton, 2011; Lave & Wenger, 1991). Cuddapah and Clayton (2011) examined a related style of new teacher induction called *cohort-based professional development*. The new teacher cohort was implemented as a component of a beginning teacher program with the intent to “support retention and quality of new teachers in a challenged urban district” (Cuddapah & Clayton, 2011, p. 62). Novice teachers discussed topics like managing the classroom, identifying teaching resources, applying differentiation, working with caregivers, motivating learners, and assessing literacy (Cuddapah & Clayton, 2011). Through group discussions of similar constructs, the teachers in these cohorts shared information and experiences. By examining the extent to which teachers learned from and created bonds with their colleagues, the researchers found important benefits of a cohort program as a complement to traditional induction and mentoring programs (Cuddapah & Clayton, 2011; Moss, 2010).

In their particular study of cohort professional development, Cuddapah and Clayton (2011) investigated the cohort concept using Wenger’s (2008) communities of practice model. Several cohort-based induction programs utilize this type of learning practice (Blair, 2008; Cuddapah & Clayton, 2011; Street, 2004). “A community of

practice is a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice” (Lave & Wenger, 1991, p. 98). Lave and Wenger (1991) defined learning through social relationships: “Learning is a process that takes place in a participation framework, not in an individual mind, that it is mediated by the differences of perspectives among the co-participants” (p. 15). In the process of sharing and reflecting on teaching practices, new teachers’ knowledge of effective instructional strategies were said to have improved (Cuddapah & Clayton, 2011).

In another study on mentoring and developing communities of practice, Blair (2008) compared and contrasted traditional models of mentor–teacher relationships to peer interaction, referring to the pairing of an experienced teacher and a new teacher as the “master-novice dyad” (p. 100). Blair (2008) noted, “The traditional mentor-mentee dyad provides some interaction, but may still represent a teacher-centered ‘leader-follower’ model of instruction, with little opportunity for developing professional relationships that encourage collaborative exchange” (p. 100). Wenger’s theory of communities of practice was prominent in Blair’s analysis of new music teachers’ reflective practices. Blair (2008) stressed the need for “peer interaction and social participation in learning” and the need to “develop a mentoring model where groups of teachers, including novices, come together regularly to support one another’s professional development in a nurturing and safe environment” (pp. 100–101). A community of practice is closely linked to professional learning communities utilized in schools to enhance collaboration among staff and to focus on specific goals for student achievement (Blair, 2008). A community of practice may bring individuals together who are engaged

in a specific practice, such as teaching a specific subject or grade (Blair, 2008).

“Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, McDermott, & Snyder, 2002, p. 4).

Studies on communities of practice by both Cuddapah and Clayton (2011) and Blair (2008) emphasized the need to create a structure and opportunity for novice teachers to meet as a group with and without mentors. The need for competent mentoring programs to direct and create a culture of learning for new teachers was also discussed in Street’s (2004) study. “Rather than seeking a prescriptive method or program for mentoring new teachers, what may prove helpful is a deeper exploration of the social and cultural learning experiences of new teachers” (Street, 2004, p. 7). Street noted that the social interactions between the novice teacher and the experienced teacher-mentor are critical. “This social constructivist view of learning takes into account that human learning and development are intrinsically social and interactive” (Street, 2004, p. 8). As in the Cuddapah and Clayton study, Street cited Wenger’s communities of practice in his discussion of interactions between mentors and novice teachers. Learners participate in communities of practitioners, and the mastery of knowledge and skill requires new teachers to move toward full participation in the practice of the community (Blair, 2008; Cuddapah & Clayton, 2011; Street, 2004).

An additional study of new teacher practices and mentorship by Philpott and Dagenais (2012) discussed communities of practice as a means to develop and support novice teachers. Philpott and Dagenais (2012) emphasized, “The effectiveness of structured mentorship programs is contingent on how such programs are perceived and

implemented by various stakeholders” (p. 92). In their study of teachers and social justice learning, they proposed an expanded model of mentorship: “We would argue that although this model could provide a supportive local environment, it does not necessarily guarantee that reform-minded experienced teachers willing to engage in dialogue about social justice education will work closely with new teachers” (Philpott & Dagenais, 2012, p. 97). Hence, these researchers maintained a mentorship program should be developed to include a community of practice paradigm with a focus on social justice education.

A handful of studies have specifically evaluated the impact of effective mentoring on student achievement (Fletcher & Strong, 2009; Harrison, Lawson, & Wortley, 2005; Shernoff, Marinez-Lora, Frazier, Jakobson, & Atkins, 2011). Fletcher and Strong (2009) identified critical components of a mentoring program that would enhance student academic success. In their research, Fletcher and Strong analyzed two types of mentor alternatives: site-based and full-release mentoring. New teachers in a large urban school district were assigned mentors, and student achievement was monitored using the results of the state assessments. All of the mentors were given the same training through the district professional development opportunities. However, some of the teachers were released from teaching full time, while the other group continued to be assigned to classroom teaching. Data indicated student achievement improved for those students taught by novice teachers paired with full-release staff members. Fletcher and Strong attributed this gain to the intensity of the time given to the mentor–mentee partnership. These researchers concluded that it is essential to provide sufficient time for new teachers and their mentors to engage in authentic discourse.

In addition to the time needed for effective mentor–mentee interactions, Harrison et al. (2005)—in a study of new teachers, mentors, and the development of self-evaluation and reflection—examined their conversations in these mentor meetings.

The action research processes and reflective strategies that we deployed encourage and promote effective dialogue between target mentor and mentee, and thereby encourage critical reflection by both parties and the research team on the development of aspects of professional practice in a series of formal professional review meetings. (Harrison et al., 2005, p. 270)

Harrison et al. (2005) highlighted the importance of reflective practice strategies: “In acknowledging the systematic nature of reflection in relation to professional training it is therefore crucial to consider how the training of mentors might be developed to impact and improve the critical reflection on practice by beginning teachers” (p. 289). It was determined that the quantity and quality of new teacher and mentor interactions were paramount to improving teacher quality (Fletcher & Strong, 2009; Harrison et al., 2005).

### **Reflective Practices and Mentoring**

In examining research on teacher reflection and its influence on teaching practices, one finds multiple views on the types and depth of reflective practice. As discussed in the introduction of this study, researchers view reflective practices as a means to develop and enhance learning to teach. Hung’s (2008) study included information on how teachers’ reflective practices on an online venue augmented the teachers’ instructional practices through developing a community of practice. Hung (2008) stated that reflection is a “social practice and illustrates an implementation of

reflective practice via the use of asynchronous discussion postings in an online learning community” (p. 48).

The depth of a teacher’s reflection has been determined to influence the level of instructional change and pedagogical improvement for these teachers. In a study of reflective thinking and teaching practices, Choy and Oo (2012) discussed the issue of teachers’ lack of critical thinking and reflection. Based on the works of Boody, Brookfield, Hamilton, and Schön, Choy and Oo found a lack of analytical reflective practices of surveyed teachers. Choy and Oo described the levels of reflection integrated into a framework of reflective cognition as (a) reflection as retrospective analysis (looking back at the experience), (b) reflection as problem solving (analyzing the problem for a solution), (c) critical reflection of self (striving for improvement), and (d) reflection on beliefs about self and self-efficacy (influence of beliefs on reflection). The majority of the teachers were self-assessing. However, the teachers gave minimal thought about the changes in teaching strategies, and their responses to the survey indicated introductory to intermediate levels of reflection (Choy & Oo, 2012). Teachers often will reflect, but the level of reflection does not necessarily impact their learning and teaching. Research has pointed to the need for in-depth training in reflective practices as a means to improve instruction.

In examining teacher preservice programs as well as teacher support in their first few years of teaching, a focus on learning to reflect on one’s teaching and to reflect with peers is imperative to foster growth. Friedman and Schoen (2009) identified the use of interactive journaling, collaborative inquiry, and self-study as significant components of reflection for preservice teachers. However, they stated levels of reflection are linked to

the individual's developmental levels as well as "intellectual disposition, personality traits, and social, cultural, and historical variables" (Friedman and Schoen, 2009, p. 62). In a similar study of reflective strategies, Ballard and McBride (2010) utilized the Van Manen model to determine the developmental levels of reflective practices of preservice teachers. The Van Manen model identified three sequential stages of reflective practice: technical rationality, practical action, and critical reflection. Technical rationality "consists of technical application of educational knowledge and basic curriculum principles" (Ballard & McBride, 2010, p. 59). In practical action, the "teacher clarifies assumptions and predispositions while assessing consequences" (Ballard & McBride, 2010, p. 59). With critical reflection, "teachers are concerned with the worth of knowledge and social circumstances useful to students apart from teacher personal bias" (Ballard & McBride, 2010, p. 59). Findings from their study corresponded to Friedman and Schoen's study, as they both identified the need for guiding practices such as debriefing interviews, weekly written assignments, and online communication to support changes in a new teacher's reflective practices (Ballard & McBride, 2010).

In addition to an individual's personal inclination toward reflective practices and high levels of reflective discernment, teachers need educational assistance to develop high-level reflective skills. Friedman and Schoen (2009) contended, "Research consistently demonstrates a statistically significant relationship between educational level and reflective judgment" (p. 62). Teachers may perform on the lower level of cognition without instruction in reflective practices.

Ostorga (2006) studied the developmental stages of reflective practices of final semester preservice teachers to identify their ability to think critically. Ostorga (2006)

determined that teachers' "educational philosophies" formed by their views on teaching, and learning impacted their "epistemic stances that in turn influence their professional practices such as reflective thinking" (p. 18). Ostorga recommended a teacher preparation course curriculum that elevates reflective thinking and continued professional development for novice and experienced teachers on the practice of reflection. "This type of development requires a transformation through years of experiences and activities that will promote an epistemic stance leading to open-mindedness, and in turn, to the possibility of engaging in critical reflective thought" (Ostorga, 2006, p. 18). Similar to Friedman and Schoen's (2009) findings, Ostorga (2006) recommended providing teachers with the proper environment to develop and encourage "inquiry about their practice" (p. 18).

In addition to educating teachers in the art of reflection, several studies examined the relationship between the development of reflective skills and the dialogic reflection between mentor teachers and their mentees. McCrary and Mazur (2010) examined the effectiveness of an online course for mentor training that was developed to instruct new mentors in collaborative reflective strategies. The structure of the interactive online course included narrative scenarios designed to elevate reflective thinking centered around "didactic" information (McCrary & Mazur, 2010, p. 328). McCrary and Mazur proffered that mentors need to provide new teachers with more than just support in instructional routines. Their findings indicated a need for the "mentor to assist their new teacher colleagues in becoming confident problem-solvers, who can wisely reason through the complexities inherent in the myriad classroom activities in which they engage every day" (McCrary & Mazur, 2010, p. 340).



New teachers and their mentors require professional development on cultivating reflective practices in order to create a progression of learning. Harrison et al. (2005) discussed the advantages of “self-evaluative and critically reflective” practices (p. 267). In their study of reflective mentor meetings, Harrison et al. examined the actions of mentors and their relationship with their mentee. Mentors were referred to as “induction tutors” and trained self-selected experienced teachers in ways to “promote effective dialogue between target mentor and mentee, and thereby encourage critical reflection by both parties in a series of formal professional review meetings” (Harrison et al., 2005, p. 270). Their case study found that improved questioning and reflective skills were evident for both the mentor and the mentee when the mentor engaged in more than just modeling instructional practices. When the mentor developed a systematic practice of questioning or challenging the new teachers during their discussion meetings, the mentees developed higher levels of critical reflection (Harrison et al., 2005).

Researchers have argued that reflective thinking may be applied, evaluated, and achieved if educators have a clear definition and understanding of reflective practices. However, while advocating teacher training to facilitate reflective practices, researchers overgeneralize the term while often precluding deeper levels of reflection and assume that teachers must be trained in specific strategies to be reflective of their teaching practices (Fendler, 2003). Fendler (2003) espoused the notion that teachers are indeed reflective practitioners and researchers must “examine their assumptions” (p. 23) before generalizing their conclusions.

Lam (2005) studied the concept of internship or whole-group mentorship by assigning the school community, and not just a single teacher, to novice teachers in Hong

Kong. The new teacher supports in Hong Kong would entail the movement from peer mentoring to engaging the entire school community in the mentoring process. Through the community of reflective practices and staff development, whole school development could be impacted (Lam, 2005). However, Lam recommended the continuation of participation in a reflective school community that also includes ongoing professional development.

In a study of new teachers' competence and their ability to manage and engage students, Shernoff et al. (2011) examined various types of mentoring programs. In their research on mentors supporting new teachers in urban schools, they examined how a service model approach to mentoring and induction would impact teacher effectiveness. Shernoff et al. described the service model approach of the Teachers Supporting Teachers in Urban Schools study as including group seminars, coaching, and professional learning communities. The findings from their research yielded a connection between “contextually relevant interventions and service models that better reflects the exigencies of real-world practice settings” (Shernoff et al., 2011, p. 482). By means of colleague support, group interactions, and substantial and focused professional development, the teachers in the study made positive gains in the effectiveness of their teaching practices (Shernoff et al., 2011). Shernoff et al. acknowledged the need for further study and adaptations of a service model approach to support new teachers. Information gleaned from an analysis of the literature on mentoring and new teacher induction have helped to guide the path of the proposed research study.

## **Implications and Areas of Future Research**

As individuals move from their preservice experiences to their first teaching position, they face numerous obstacles. Teacher preparatory courses and student teaching experiences do not adequately prepare new teachers for the challenges they must face in the profession. New teacher induction programs, which include the component of mentoring, have been utilized to ease new teachers' transition. The question has been how to sufficiently sustain new teachers and develop their capacity to teach effectively.

Historically, new teacher induction programs have been developed to address teacher attrition. The concern was that teachers often left the profession due to a lack of support from administration and colleagues. When new teacher induction programs were first developed, educational professionals assumed a connection between teacher retention and quality teaching. A shift in focus occurred with the advent of federal and state education policies. Educational reform policies changed the focus of new teacher induction programs to an emphasis on teacher pedagogy and the impact of teacher quality on student achievement (Onchwari & Keengwe, 2010). The research questions developed for this research study are intended to examine the impact of reflective dialogue between a mentor and their mentee. In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson (2011) Framework for Teaching? How do the types of reflective conversation influence the instructional practices of the mentee? What specific characteristics of individual reflection influence new teachers' instruction in the classroom? What characteristics of reflective conversation provide the greatest influence on the teaching skills described in Domain 3 of Danielson's Framework for Teaching?

How might collaborative reflection between mentors and their mentees influence new teachers' ability to communicate with students their learning intentions, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and demonstrate flexibility and responsiveness?

The research context for the present investigation on new teacher induction and mentoring is the paucity of studies on the impact of mentoring that includes reflective dialogue on teacher effectiveness and student achievement. As a result, there is a need to explore the following questions: First, how do the types of reflective conversation influence the instructional practices of the mentee? Also, what specific aspects of collaborative reflection affect new teachers' instruction in the classroom? What characteristics of reflective conversation provide the greatest impact on the teaching skills described in Domain 3 of Danielson's (2011) Framework for Teaching? Lastly, how will collaborative reflection between mentors and their mentees impact new teachers' ability to communicate with students, to utilize questioning and discussion techniques, to engage their students in learning, to use assessments in their instruction, and to demonstrate flexibility and responsiveness?

## **Chapter 3: Methodology**

### **Introduction and Research Questions**

The purpose of this research was to determine the impact of mentoring on new teachers' instructional practices. While mentoring programs may consist of various components, previous research indicates the value of a qualitative research design with a focus on more than just support in situational practice (Feiman-Nemser, 2001, p. 17). The overarching question of this study was the following: In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson (2011) Framework for Teaching? More explicitly, how might collaborative reflection between mentors and their mentees influence new teachers' ability to communicate with students their learning intentions, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and demonstrate flexibility and responsiveness? This chapter includes a discussion of the chosen research methodology and design, the selection process of participants, the research study site, the role of the researcher, and data collection.

### **Research Type and Perspective**

Phenomenological qualitative design has been defined by Creswell (2009) as:  
A strategy of inquiry in which a researcher identifies the essence of human experience about a phenomenon as described by participants. . . . The procedure involves a small number of subjects through extensive and prolonged engagement to develop patterns and relationships of meaning. (p. 13)

The value of utilizing a phenomenological construct for this research study was that it allowed the researcher to observe instructional practices of new teachers in a classroom setting and to identify teachers' perceptions of their reflective strategies, as well as their teaching practices (Creswell, 2009).

As this study examined the instructional practices of new teachers and the influence of dialogic reflection on such practices, a phenomenological naturalistic inquiry approach was the best support for this research. A naturalistic inquiry is research positioned in real-life experiences in natural settings (Frey, Botan, & Kreps, 1991, p. 231). The social context in which people communicate influences what occurs (Frey et al., 1991). The three suppositions of a naturalistic inquiry are (a) naturalism, meaning the phenomenon should be studied in its natural context; (b) phenomenology, an examination of the phenomenon without any preconceived notions or expectations; and (c) the interpretive nature of naturalistic research, acknowledging that the researcher—despite trying to see the situation from the point of view of those studied—cannot escape his or her own viewpoint (Frey et al., 1991, p. 231). When a researcher examines the behavior of people in schools, they are influenced by the organizational context. To generalize research findings in schools, research is best conducted within school settings where all these forces are intact (Ballard & McBride, 2010).

### **Context of the Study**

Virtually all Pennsylvania public school districts now have mentoring programs. However, the scope of these programs and the criteria for selecting mentors vary, from programs with minimal mentor–mentee interaction to intensive protocols for new teacher support from a mentor. In the participating district, the new teacher induction program

involves an intensive mentoring program based on the following assumptions as defined by Dune and Villani (2007):

- The growth and development of children is vitally linked to the growth and development of adults in and beyond schools.
- A successful mentoring program can help teachers respond intentionally with effective strategies to the needs of a diverse population of learners.
- The early years of teaching are a critical part of a continuum of learning—a link between preservice preparation and ongoing professional development.
- Mentoring is a critical component of the induction of new teachers in transforming the practice of teaching and is the shrewdest investment in teacher quality.
- Mentoring is part of a comprehensive plan for professional growth, grounded in what we know about adult learning and development.
- Mentoring is a demonstration of caring for individuals and the profession.
- The changing nature of school will continue to impact the role of teacher and the structure of mentoring. (Dunne & Villani, 2007, pp. 1-2)

Dunne and Villani (2007) argued that mentoring programs must include mentor training in collaborative interaction and dialogic reflection. In addition to professional development for mentor training, both the mentor and mentee must be instructed in reflective strategies, and the overall school culture must promote reflection. The district must emphasize the importance of the multiple factors needed to develop and sustain these practices. To promote teachers' reflection of their instruction and their focus on improvement for student achievement, districts must encourage and allow for

opportunities for mentors and their mentees to engage in directed, reflective conversation about their teaching practices and their student learning. In their book, *Mentoring New Teachers Through Collaborative Coaching*, Dunne and Villani (2007) proposed the following activities to promote new teacher reflection from basic to complex levels:

- Summarize and reflect on what occurred during the lesson.
- Identify impressions and assessments of how the lesson went.
- Recall data supporting impressions and assessments.
- Compare what was planned with what actually occurred (teaching decisions and student learning).
- Infer how teaching decisions/behaviors impacted student learning.
- Reflect on new learning and insights and how they will inform future teaching.
- Identify what was useful with regard to the planning and reflective conversations and what, if anything, to do differently next time. (p. 74)

This study examined the impact of a reflective discourse model in an intensive mentoring program on new teachers' pedagogy. The research data analyzed were observations of mentors and their new teachers' classroom lessons, interviews with the new teachers and their assigned mentors, and a collection of artifacts.

### **Role of the Researcher**

This researcher's primary focus on mentoring and its impact on new teachers led to the investigation of different types of mentoring programs and the mentor–mentee relationship during this researcher's tenure as director of curriculum and instruction for a suburban district located in Pennsylvania. As an administrator in charge of new teacher



support and professional development, this researcher was obligated to create a comprehensive 3-year program for new teachers. As this researcher examined the induction programs in other Pennsylvania school districts, it was apparent that there was a multitude of program delivery types.

With the consistently diverse components in these induction programs, this researcher aspired to customize the program that would best fit the district while adhering to PDE requirements. The Pennsylvania Code (2014) Title 22 Chapter 49.16 states that the “induction plan shall reflect a mentor relationship between the first-year teacher and . . . the induction team” (§ 49.16[c]). Mentoring is a personal relationship in which a highly effective teacher provides professional instruction and guidance in order to assist professional teachers in achieving a practical, working command of what is known about how to teach effectively. Mentors provide instruction and professional development directly related to the immediate professional needs of the inductee with three major benefits:

1. The new teacher is able to expand and refine professional competence.
2. The new teacher will be able to develop a commitment to and excitement about teaching as a continually developing, professional, and lifelong career.
3. The new teacher will make informal choices in his or her own teaching that will influence students to achieve their full reach of talents and gifts.

According to the PDE (2013):

Effective mentoring is built on a foundation of mutual trust and collegiality and is not to be confused with evaluation or assessment. The purpose of this relationship is to provide assistance and cannot replace the role of the administrator in

supervision and evaluation as defined in Pennsylvania school laws and regulations. (pp. 6–7)

With the PDE’s induction criteria in mind, this researcher came to believe that one essential component—mentoring—needed to be revised. The district’s mentoring program consisted of an assignment of a mentor to a teacher; however, the assignment was not aligned with research-based criteria that might lead to more successful relationships between mentors and their mentees. The district’s process included minimal requirements for the mentor. To recruit mentors, the human resources department would contact the building principal of the new teacher’s assigned building and request a mentor. The district policy for mentoring required that a potential mentor have 5 years of teaching experience. The mentor would log in hours of the meetings with the assigned mentee, and the mentors were financially reimbursed at the end of the year. There was no oversight or mentor training throughout the year. In this researcher’s view, much was missing from the current program in regard to the mentor selection process, as well as defining roles and responsibilities and training mentors. After careful reading of Pennsylvania Code (2014) Title 22 Chapter 49 and a review of research literature, this researcher realized how the mentor program fell short of the criteria for effective mentoring.

In this researcher’s view, the district needed to include a mentor training, a structure of interaction, and a component of reflective dialogue embedded in the program. With a desire to create a comprehensive and intensive induction program, this researcher redesigned the district’s new teacher induction plan to include a clearly defined mentoring procedure. Each year, the district hires approximately 10–15 new teachers.

During the month of August, the week before the teachers are to report back to work, this researcher facilitates 4 days of new teacher induction classes. During this time, the researcher and other in-district administrators provide workshops on state and district initiatives, such as common core standards and educator effectiveness models, classroom management, special education inclusive practices, the Danielson (2011) Framework for Teaching, English language learners teaching methods, and curriculum and lesson design. After the initial 4 days of induction classes, the new teachers attend monthly workshops on parent–teacher communication, integrating technology, and topics previously presented in the induction classes, in addition to reflection sessions that coincide with their mentor observations. The assigned mentors attend training in September focusing on mentor skills and the Danielson (2011) Framework for Teaching. They are required to observe their mentee twice during the year and to schedule and participate in two feedback meetings with their mentee.

### **Participant Selection**

In the selection of participants in this qualitative study, this researcher chose a purposive sampling method (Teddie & Tashakkori, 2009, pp. 173-174). This type of sampling includes the selection of subjects based on significant characteristics in relation to the study of new teachers and mentoring. Examples of such identifiers are where the participants work (midsized suburban school district), position in society (classroom teachers), and precise cultural education (new and experienced teachers). The sample was chosen in two stages. The first stage involved the identification of a group within a specific population as indicated above. The group was the new and new-

to-district teachers and their mentors. This group was chosen from the broader population of teachers from this specific public school district.

Leading up to the 2014 school year, the district had hired 13 new staff members from varying grade levels and subject matter. Six teachers were hired at the elementary level: a prekindergarten teacher, a first-grade teacher, an English as a Second Language teacher, a teacher for gifted students, an emotional support teacher, and an elementary librarian. At the middle school level, three staff members were hired: a special education mathematics teacher, a speech and language therapist, and an eighth-grade science teacher. Four teachers were hired at the high school level: a biology teacher, a chemistry teacher, a physics teacher, and a life-skills special education teacher. For this study, the researcher sought to include four of the 13 new teachers and their assigned mentors in this study. The researcher sent a request letter via email to all 13 teachers and their mentors with an explanation of the purpose of the study, including participant responsibilities. Their participation in this study was voluntary. The researcher selected participants from a sampling of those who expressed interest in volunteering for the study and aimed to have a representative sample from each of the three building levels as well as the four elementary schools.

In order to understand the impact of dialogic conversation and reflection on teachers' instructional practices, this study included additional elements in regard to reflective practices. Each participant's mentor received additional training in the systematized practices for initiating and continuing reflective conversations with their mentees. These mentors received training on the following topics: (a) the seven norms of collaboration, (b) questions for reflective practitioners and for planning conversation, (c)

the collaborative coaching cycle, and (d) classroom data gathering strategies (Dunne & Villani, 2007). Furthermore, the mentor participants were asked to observe their mentees four times during the school year. Release time was provided for the mentors in accordance with their union's contractual agreement. A standard recording sheet was utilized to assist the mentor in identifying aspects of the five components of Domain 3 of the Danielson (2011) Framework for Teaching. After each mentor observation, the mentee and mentor engaged in reflective conversation guided by reflective questioning and discussion techniques.

### **Site of Study**

The selected site of this study was intentionally chosen to aid this researcher in an understanding of the research problem and the subsequent questions. In order to assess the impact of intensive mentoring on new teachers, a district was chosen that included aspects of intensive mentoring in its new teacher induction program. The East School District (pseudonym) is a suburban district located in Pennsylvania. This district is comprised of four elementary schools, one middle school, and one high school and services three townships. This region is composed of residential and commercial areas. Residential areas include single-family homes, large apartment complexes, and communities of semidetached and townhomes. At the time of the study, the district possessed an overall diverse student population of approximately 3,396 students, with 30% economically disadvantaged students, 10% English language learners, and 11% students with Individualized Education Programs. The student population was 58.7% European American, 17.3% Asian, 10.1% Hispanic, 9.4% African American, 4% multiracial, and 0.6% American Indian or Alaskan Native. The district has seen an

increase in economically disadvantaged students over the past 5 years. The district identifies a child's socioeconomic status according to the child's eligibility for free or reduced-price lunch. Research was conducted at the middle school and three of the elementary schools.

East Middle School is located in the heart of the school district on a campus-like setting connecting the high school and administration building. Two of the four elementary schools (Elementary School A and B) are a very short distance from the main campus. As the district encompasses three townships, the two other elementary schools (Elementary School C and D) are located in more remote areas several miles away from the campus. These two elementary schools are quite different in the population of students they serve. Current data illustrate the variance in student and community demographics from Elementary School C to Elementary School D. Elementary School C qualified for the PA Title I Federal Grant program. Eligibility for school participation is based on 40% or more families of low income. Elementary School D is comprised of a primarily Caucasian student population from an affluent community.

### **Materials and Instruments of Study**

The research data was gathered from multiple data collection methods. A qualitative study utilizes instruments of inquiry that help describe, decode, and translate the meanings of naturally occurring phenomena (Frey et al., 1999). The instruments used in this study were observation, interview, and collection of artifacts.

**Observation.** Marshall and Rossman (2011) asserted that observation is the cornerstone of qualitative research. "Observation entails the systematic noting and recoding of events, behaviors, and artifacts (objects) in the social setting" (Marshall &

Rossman, 2011, p. 139). The purpose of observational research is to place the researcher in the environment of study and to compel accurate and comprehensive data collection, interpretation, and analysis (Stake, 2010; Willis, 2007).

This researcher examined new teachers' instructional practices as a nonparticipant observer in daily elementary and middle school classes in first to sixth grade for 45-minute blocks of time over the course of 6 months, collecting observational data (Creswell, 2013). Each new teacher participant was observed a minimum of four times after their mentors had observed them and participated in feedback sessions. Researcher observations were not permitted to be considered for a teacher's ratings as per the PDE Educator Effectiveness Program's Classroom Teacher Rating Form (PDE 82-1; Pennsylvania Code, 2014, § 19.1). Both the director of curriculum and instruction and the director of science, technology, engineering, and math were not required to engage in formal observations of the teaching staff.

Creswell (2013) defined this type of observation as follows: "The researcher is an outsider of the group under study, watching and taking field notes from a distance recording data without direct involvement with activity or people" (p. 167). The observation protocol was designed to include appropriate documentation of dates, classroom locations, and times of observation (Creswell, 2009, 2013). Permission to gain access to the study site and to observe the participant was obtained through consent forms. Before leaving each observation, the researcher confirmed or clarified instructional practices or classroom procedures or assignments with the teacher. Observation field notes were reproduced immediately after each observation to ensure accuracy.

Classroom observation as a methodology was chosen for this study to help identify specific teaching practices as viewed during a classroom lesson. Each new teacher participant was observed four times by this researcher during the study period within the following time frames: (a) February, (b) March, (c) April, and (d) between May and June. In addition, each mentor was observed two times by this researcher, once at the beginning of the study and once at the conclusion of the study. As the research question sought to recognize the relationship between new teachers' instructional practices and their interaction with their mentor, observing the teachers in the classroom situation provided evidence of teacher behaviors related to Domain 3, Instruction, of Danielson's (2011) Framework for Teaching. In analyzing the teaching and learning of the observed teacher, the following components aided to categorize the new teacher's lesson delivery: (a) communicating with students, (b) using questioning and discussion techniques, (c) engaging students in learning, (d) using assessment in instruction, and (e) demonstrating flexibility and responsiveness.

**Interviews.** For the purposes of this study, qualitative individual, semistructured interviews were conducted face to face with the new teacher participants and their assigned mentors with follow-up questions to clarify understanding (Creswell, 2013; Willis, 2007). This researcher scheduled separate interviews with mentors and the mentees subsequent to observations and reflective meetings. Additionally, a dyad interview with both the new teacher and mentor occurred at the end of the study period. Each interview was audiotaped using a password-protected Apple iPad with an iTalk recorder and transcribed using the Dragon Dictation App on an Apple iPad. During the



transcriptions, all identifying information was replaced with pseudonyms, and after the transcription, audio files were deleted from the iPad.

Interviews were developed and conducted consistent with Creswell's (2009) criteria for interview protocol. This researcher included the following components recommended for asking and recording questions:

(a) A heading: date, place, interviewer, interviewee; (b) instructions for the interviewer to follow so that standard procedures are used from one interview to another; (c) the questions: 4-5 questions that are often the sub-questions in a qualitative research plan, followed by some concluding statement or question; (d) probes for the 4-5 questions, to follow-up and ask individuals to explain their ideas in more detail or to elaborate on what they have said; and (e) a final thank you statement to acknowledge the time the interviewee spent during the interview. (Creswell, 2009, p. 183)

The interview protocol for this research on mentoring and new teachers included inquiring about new teachers' reflections and perceptions of their instructional and reflective practices and mentors' reflections and perceptions on their observations and feedback with their mentees.

Interview questions for the new teachers included four background questions and five questions on classroom instruction (see Appendix A). Question 5 addresses communicating with students, Question 6 addresses engaging students in learning, Question 7 addresses questioning and discussion techniques, Question 8 addresses using assessments in instruction, and Question 9 addresses flexibility and responsiveness.

Interview questions for the mentors included five background questions and seven questions on classroom instruction (see Appendix B). Question 8 addresses communicating with students, Question 9 addresses engaging students in learning, Question 10 addresses questioning and discussion techniques, Question 11 addresses using assessments in instruction, and Question 12 addresses flexibility and responsiveness.

Interview questions for the dyad interview included five questions with a focus on reflection (see Appendix C). Question 1 addresses the successes of dialogic reflection, Questions 2 addresses the levels of reflection, Question 3 addresses the Collaboration Observation Recording and Reflection tool, Question 4 addresses changes in instructional practices due to dialogic reflection, and Question 5 addresses final thoughts about the experience.

The participants were informed that this researcher would be utilizing the Dragon Dictation App to record and to facilitate note-taking and that this researcher was the only individual privy to the tapes, which were destroyed after they were transcribed. Participants were reminded that they had signed a form devised to meet human subject requirements. Essentially, this document stated that all information was held confidential, their participation was voluntary, they may stop at any time if they felt uncomfortable, and this researcher did not intend to inflict any harm. This researcher reiterated that this study did not aim to evaluate the participants' techniques or experiences. Rather, this researcher was trying to learn more about how mentors impact a teacher's instructional practices.

This researcher interviewed each inductee and their mentor at the beginning of the study and within 1 month after the final observation at the completion of the school year. Interviewing the subjects of this study assisted in an understanding of their perceptions of their teaching practices as well as their experiences with reflective dialogue during their mentor–mentee meetings. The use of interviews as one part of this qualitative study was chosen in order to satisfy the inquiry into the relationship between reflective practices of mentors and their mentees and effective teaching practices.

**Collection of artifacts.** Throughout this study, the following documents were collected: booklets, forms, and papers from induction workshops and mentor trainings; the framework rubric for Domain 3; and additional artifacts, such as new teacher and mentor logs. The rubric for Domain 3, Instruction, includes five components. Component 3a, communicating with students, includes (a) expectations for learning, (b) directions and procedures, (c) explanation of content, and (d) use of oral and written language. Component 3b, using questioning and discussion techniques, includes (a) quality of questions, (b) discussion techniques, and (c) student participation. Component 3c, engaging students in learning, includes (a) activities and assignments, (b) grouping of students, (c) instructional materials and resources, and (d) structure and pacing. Component 3d, using assessment in instruction, includes (a) assessment criteria, (b) monitoring of student learning, (c) feedback to students, and (d) student self-assessment and monitoring of progress. Component 3e, demonstrating flexibility and responsiveness, includes (a) lesson adjustment, (b) response to students, and (c) persistence.

Mentor sheets (Collaborative Observation Recording and Reflection sheets) for each mentor's observation of their mentee were collected. The lesson artifacts provided additional information on the elements of instruction previously discussed.

These documents afforded this researcher with varied elements of the new teachers' lesson delivery and their reflective practices postlesson. In addition, mentor logs and workshops provided a context to the multiple supports provided for the new teachers and their mentors. The mentors' lesson recording sheet provided quantifiable data as to the new teachers' instructional practices as these practices relate to Domain 3 of Danielson's (2011) Framework for Teaching. These artifacts substantiated and reinforced the patterns and themes that emerged throughout the study.

### **Data Collection**

**Informed consent.** Participants received a synopsis of the research process including research topic and questions, study procedures, commitment requirements of the participants (with acknowledgement of their right to withdraw from the study at any time), risks and benefits of the study, and the confidentiality in regard to their personal information. Participants were asked to sign the informed consent form. Once the individuals selected had agreed to participate and had completed consent and confidentiality procedures, a schedule for data collection was finalized. The participants were informed via email of observation and interview dates and times as well as the schedule for mentee and mentor training. Timelines for observations, interviews, mentor-mentee observations, and feedback sessions were scheduled and shared with the participants.

Data collected from the three research methods of observation, interview, and artifact collection were stored in a document folder maintained on a password-protected flash drive. The hard copies of the consent forms, observation field notes, transcribed interviews, and artifacts were stored in a locked cabinet only assessable to this researcher. All collected data, both virtual and hardcopy, will be maintained for 3 years.

**Data collection method.** Data to be collected included field notes from researcher observations of mentors (two times each), new teachers (four times each) and interview data from the new teachers, their mentors, and the dyad. Data also included artifacts collected from the district's new teacher induction plan and workshops, mentor training, feedback sessions between mentor and mentee, and mentor and mentee logs.

### **Data Analysis**

Creswell (2013) stated, "The processes of data collection, data analysis, and report writing are not distinct steps in the process—they are interrelated and often go on simultaneously in a research project" (p. 182). Early data analysis occurred during the actual collection of data, which included memo writing and a compilation of analytic files organizing the interviews, observations, and artifacts with a rudimentary coding of themes (Glesne, 1999). This process was organized as a data analysis spiral, in which "the researcher engages in the process of moving in analytic circles rather than using a fixed linear approach" (Creswell, 2013, p. 182). Throughout the data collection progression, this researcher wrote monthly reviews to examine the research process and to reflect on the current state of the study and the potential complications as this researcher planned for continuation of the study.

As the research data collection drew to a conclusion, this researcher dedicated attention to systematic coding of the collected data. Analytic coding (classifying, sorting) encompasses “aggregating the text or visual data into small categories of information, seeking evidence for the code from different databases being used in a study, and then assigning a label to the code” (Creswell, 2013, p. 184). This researcher used NVivo-10 (QSR International) qualitative data analysis software to assist in the analysis of emerging and identified patterns and themes.

### **Trustworthiness**

According to qualitative researchers such as Creswell (2013) and Willis (2007), validity is a significant aspect of the foundation of a research study. Creswell (2009, 2013) and Glesne (1999) suggested eight substantiation actions to assure for research validity: (a) prolonged engagement and persistent observation; (b) triangulation; (c) negative case analysis; (d) peer review and debriefing; (e) clarification of researcher bias; (f) member checking; (g) rich, thick description; and (h) external audit.

In order to strengthen the validity of this study, triangulation of data occurred. “The essential idea of triangulation is to find multiple sources of confirmation when you want to draw a conclusion” (Willis, 2007, p. 218). In line with establishing validity for this qualitative study, three data collection methods were used: observation, interview, and collection of documents. In addition, an audit trail of the gathering of raw data to the analysis of said data was kept to guarantee a design for the research study data (Willis, 2007). Also, a member check was performed at the end of all observations, as new teachers and their mentors were asked to clarify questions via informal interviews. A critical friend reviewed each observation field note, and the researcher’s conceptual

memos and feedback were provided.

Coding for categories and themes was completed after several rounds of review. This researcher utilized, as a guide for descriptive and reflective notes, the Domain 3, Instruction, rubric from the Danielson (2011) Framework for Teaching. The Danielson rubric is utilized as part of the district's Educator Effectiveness Program, as required by the PDE for teacher evaluation (Pennsylvania Code, 2014). A second doctoral student read all field notes and conceptual memos, providing feedback and recommending changes to identified themes to assure validity.

Stage 1 entailed triangulated data collection through the three primary sources of observations, interviews, and document collection. Stage 2 entailed analyzing accumulated data and coding for emergent themes. Data from coding yielded categories consistent with Domain 3 of Danielson's (2011) Framework for Teaching: (a) communicating with students, (b) engaging students in learning, (c) using questioning and discussion techniques, (d) using assessments in instruction, and (e) demonstrating flexibility and responsiveness. In addition to the Danielson competencies, levels of reflective practices were identified. Within these categories, several themes emerged. Patterns and themes were identified for each observation, interview, and document collected.

### **Issues of Validity**

When assessing the validity of this study, this researcher identified the influence of the attachment to this field of study as director of curriculum and instruction for the district participating in this study. In the current position as the lead administrator for the implementation of the district's new teacher induction program, this researcher needed to

investigate researcher bias by carefully evaluating subjectivity in light of this relationship. During the process of facilitating the induction and mentor classes, this researcher developed relationships with the new teachers and their mentors. The relationship may be categorized as administrator-teacher. However, the superintendent of the district does not require the director of curriculum and instruction to partake in formal teacher observations. Hence, this researcher's study observations were not taken into consideration for their formal teacher ratings. This researcher assured the participants that these observations would not be used as district observations and that this researcher would not share the information with their building principals. It must be noted that this researcher is still the participants' supervisor, and this association certainly would affect their teaching performance and this researcher's interpretation of their teaching performance.

In addition to researcher bias, this researcher needed to establish time for in-depth interviews and frequent observations over the course of the study period to assure for the collection of sufficient data. The additional issues of validity include sample selection, interrater reliability, disposition of the participants, and the subjective nature of the data.

In addressing the validity of the sample selection, the researcher chose a purposive random sample of new teachers (Creswell, 2009). In adopting the characteristics of a purposive sampling technique (Teddie & Tashakkori, 2009, pp. 173-174), this researcher sought to generate a sample that would address the research questions and provide transferability with regard to generalizability. Though this researcher had met the new teachers at the new teacher induction workshops, interaction had been perfunctory with limited personal interaction with the individual new teachers.



In addition, as the district's director of curriculum and instruction, this researcher did not engage in formal observation of the new teachers or their mentors.

In exploring the data retrieved from the mentor observations, an issue of interrater reliability may emerge. Though each participant mentor participated in training in reflective and dialogic conversation as well as the process involved in their observation of their mentee, how effectively these mentors utilized these practices would determine the interrater reliability of their observation recording forms.

In order to assure for validity, a researcher must carefully review the principles of ethics. Marshall and Rossman (2011) defined these moral principles as respect for persons, beneficence, and justice. The researcher must develop a trusting relationship with the subjects of the study, endorse research reliability, and assure proper conduct (Creswell, 2009). Questions of ethical matters were addressed in the Institutional Review Board application as well as informed consent forms.

### **Summary**

In order to investigate the impact of reflective practices among new teachers and their mentors effectively, the researcher chose the discussed methodology. Through a comprehensive qualitative study, the phenomena of mentoring new teachers and improved instruction may be meticulously studied. Results of such a study may prove of benefit to administrators of new teacher induction programs, building principals, and teachers in helping to provide ways to improve and grow as lifelong learners. If reflective practices of a mentor and their mentee should prove to improve the new teacher's instructional practices as defined by the Danielson (2011) Framework for Teaching, education policy makers as well as district administrators may find the benefit of

including professional development on reflective practices and supporting reflective and collaborative conversations for their teachers.

## Chapter 4: Data Analysis and Results

### Research Questions

This researcher, through a qualitative study of new teachers and their mentors, has endeavored to determine if a mentoring program for new teachers, which included the components of reflective dialogue, impacted the new teachers' instructional practices. The overarching question of this study was the following: In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson (2011) Framework for Teaching? How might collaborative reflection between mentors and their mentees influence new teachers' ability to: communicate learning intentions to students, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and demonstrate flexibility and responsiveness?

### Methodology

A qualitative methodology was selected to investigate a comprehensive range of intersecting instructional practices and the influence of dialogic reflective routines of a new teacher and their mentor on these new teacher's instructional practices. This researcher utilized observations, interviews, and the collection of artifacts to accomplish an in-depth study of this social phenomenon.

**Observations.** Classroom observation as a methodology was chosen for this study to help identify specific teaching practices as viewed during a classroom lesson. This "nonparticipant" researcher asked consenting participants to agree to observations of their instruction in their classrooms with regard to Domain 3 of the Danielson (2011) Framework for Teaching. It must be noted that this researcher's observations were not

permitted to be considered for a teacher's evaluative ratings as per the PDE Educator Effectiveness Teacher Rating Form titled PDE 82-1. It also should be noted that the researcher serves as an administrator in the study district, but had no formal or contractual evaluative responsibilities in relation to teacher performance.

This researcher observed new teacher study participants in their classrooms four times for approximately 45-minute sessions each time during the course of the study. The researcher observed participating mentors two times, for 45 minutes each time. All observations were followed by a brief (30 minute) meeting with the new teacher or mentor where discussions were limited to Domain 3 of the Danielson (2011) Framework for Teaching. All observations and postobservation sessions were held in mutually agreed-upon places and at mutually acceptable times.

In addition to the researcher observations, study mentors were asked to observe their mentees twice over the course of the study, for approximately 45 minutes of class time per observation. Again, observations and discussions took place at mutually acceptable times and places.

The district standard format for lesson plans, which includes the components of instructional strategies that form the focus of this study, were collected from teachers and used to guide observations. All observations and discussions were limited to observable instructional practices for Danielson's (2011) Framework for Teaching, Domain 3, as listed above. A Collaborative Observation Recording and Reflection sheet (Appendix E) was utilized to assist the mentors in identifying aspects of the five components of Domain 3 of Danielson's (2011) Framework for Teaching. This document provided space for the mentors to comment on two questions: (a) "What did I notice?" and (b) "What did I

wonder?” as they observed their mentees’ lesson through the lens of instructional practice proficiencies. After each mentor observation, the mentee and mentor engaged in reflective conversation—guided by reflective discussion techniques—for approximately 30 minutes. The mentors were asked to maintain a record of their reflective dialogue on the Collaborative Observation Recording and Reflection sheet, which was collected by this researcher at the end of the study period.

**Interviews.** For the purposes of this study, qualitative individual, semistructured interviews were conducted face-to-face with the new teacher participants and with participating mentors, with follow-up questions to clarify the researcher’s understanding. Interviews lasted approximately 1 hour. Interviewing the subjects of this study assisted in an understanding of their perceptions of their teaching practices as related to Domain 3 of the Danielson (2011) Framework for Teaching as well as their experiences with reflective dialogue during their mentor/mentee meetings. The use of interviews was chosen in order to satisfy the inquiry into the relationship between reflective practices of mentors and their mentees and effective teaching practices as measured by Danielson’s (2011) Framework for Teaching.

Each new teacher and mentor participant was interviewed separately two times: once at the beginning and once at the end of the study period. Interviews took place at a mutually agreed-upon location and time between this researcher and each participant. Additionally, a dyad interview with both the new teacher and mentor occurred at the end of the study period. Each interview was audiotaped using a personal, password protected Apple iPad with an iTalk recorder and transcribed by this researcher using the Dragon Dictation App on an Apple iPad. During the transcriptions, all identifying information

was replaced with pseudonyms, and after the transcription, audio files were deleted from the iPad.

Interview protocol for this research on mentoring and new teachers included inquiring about new teachers' reflections and perceptions of their instructional and reflective practices, mentors' reflections and perceptions on their observations, and collaborative reflection meetings with their mentees (see Appendices A, B, and C). The participants were informed of the following: (a) utilization of the Dragon Dictation App to record and to facilitate note-taking, (b) destruction of tapes after they were transcribed by this researcher, (c) storage of all field notes in a secure locked file cabinet, (d) alteration of all identifying information to ensure confidentiality. The Interview Protocol documents (Appendices A, B, and C) stated that all information was held confidential and that participation was voluntary and could be stopped or declined at any time. Participants were told that this study did not aim to evaluate teacher techniques or experiences, and that the researcher was not contracted by the district to conduct or review teacher material. Rather, the purpose of the study was to learn more about how reflective dialogue influences a teacher's instructional practices.

**Collection of Documents.** Throughout this study, documents were collected, such as new teacher induction workshop and mentor training attendance records; mentor logs; and Collaborative Observation Recording and Reflection sheets (see Appendix E). New teacher induction workshop attendance records indicated exposure to professional development offered to the new teachers. New teacher training topics included differentiated instruction, integration of technology in the classroom, data analysis, teaching strategies for students with disabilities and English language learners, reflective

inquiry practices, the PDE Educator Effectiveness Program (Pennsylvania Code, 2014), and Danielson's (2007, 2011, 2013) Framework for Teaching.

Mentor training attendance records provided verification of exposure to mentor training topics, which included roles and responsibilities of mentoring and the practices for initiating and continuing reflective conversations with mentees. Each workshop included a PowerPoint presentation and handouts with readings and strategies to reinforce the content. The mentor log provided this researcher with information on the new teacher and mentor length of interaction as well as the purpose of their interaction. In addition, the mentors were asked to maintain a record of their reflective dialogue on the Collaborative Observation Recording and Reflection sheet, which was collected by this researcher at the end of the study period. All documents collected as well as all field notes were stored securely. As part of the study, this researcher maintained a spreadsheet recording the dates of interviews and observations.

### **Characteristics of New Teacher and Mentor Participants**

Four new teachers and their mentors agreed to participate in this study on the impact of reflective conversation between a mentor and a mentee on the new teacher's instructional practices. Characteristics of the participants, as shown in Table 1, includes their sex, ethnicity, school assignment (pseudonym), educational certification, teaching assignment, and number of years teaching.

Table 1

*Characteristics of Study Participants*

	<b>Mentee (Pseudonym)</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>School Assignment</b>	<b>Certification</b>	<b>Teaching Assignment</b>	<b>Years Teaching</b>
<b>A</b>	Beth Adams	Female	Caucasian	Frank Parker Elementary School	General Science, Elementary	Kindergarden through 4th grade Gifted	1.40
<b>B</b>	Natalie Baker	Female	Caucasian	East Middle School	General Science, Biology	8th grade Science	1.0
<b>C</b>	Nora Cooke	Female	Caucasian	Harbor Grove Elementary School	Elementary	1st grade	2.0
<b>D</b>	Molly Dalton	Female	Caucasian	Stone View Elementary School	English as a Second Language, Elementary	English as a Second Language	1.50
	<b>Mentor (Pseudonym)</b>	<b>Sex</b>	<b>Ethnicity</b>	<b>School Assignment</b>	<b>Certification</b>	<b>Teaching Assignment</b>	<b>Years Teaching</b>
<b>A</b>	Mary Arnold	Female	Caucasian	East Middle	Reading	5th/6th grade	23.0



				School	Specialist, Elementary	Gifted	
<b>B</b>	Nancy Burton	Female	Caucasian	East Middle School	Earth/Space, Educational Leadership and Supervision	8th grade Science	18.80
<b>C</b>	Marcia Carver	Female	Caucasian	Harbor Grove Elementary School	Elementary	1st grade	16.70
<b>D</b>	Sara Dempsey	Female	Caucasian	Harbor Grove Elementary School	English as a Second Language, Elementary	English as a Second Language	23

Mentee A, Ms. Adams, is currently a teacher at the Frank Parker Elementary School. She entered the teaching profession after 10 years in the business field as a grant writer and office manager. Ms. Adams received her certification in elementary education and general science. She has been teaching as an elementary support teacher for gifted and academically talented students for 1.40 years. She is assigned to this district's elementary school where she teaches groups of gifted and academically talented students in grades 1 through 4 during the school's Response to Intervention/Instruction (RtII) 40-minute block of language arts enrichment instruction. Ms. Adams's mentor, Ms. Arnold, is also a teacher of gifted students. Ms. Arnold supported gifted and academically talented students at the elementary level for numerous years before transferring to the middle school level 4 years ago. She currently teaches one block of advanced math and provides push-in support for gifted students at the fifth- and sixth-grade levels. Ms. Arnold is certified in elementary education and as a reading specialist. She has been teaching for 23 years.

Mentee B, Ms. Baker, joined the East Middle School staff as an eighth-grade science teacher after substituting as a biology teacher at the high school level in a neighboring school district. She has her certification in general science and biology. Ms. Baker was assigned to a four-person team composing of the following content areas: social studies, English, science and math. Ms. Baker's mentor, Ms. Burton, is also assigned to an eighth-grade team, teaching next door to Ms. Baker and utilizing the same science curriculum. Ms. Burton recently went back into the classroom after 7 years as the

district's science supervisor. She is certified in Earth/space science and educational leadership and supervision, and she has been in the education field for almost 19 years.

Mentee C, Ms. Cooke, is currently teaching first grade at Harbor Grove Elementary School in the East School District. She had been a substitute teacher in the East School District and several neighboring school districts for approximately 3 years. Her certification is in elementary education. Ms. Cooke's mentor, Ms. Carver, also teaches first grade at Harbor Grove Elementary School with her classroom located three classrooms down the hall from Ms. Cooke. Ms. Carver has been teaching for almost 17 years.

Mentee D, Ms. Dalton, has been assigned this year to Stone View Elementary School as an English as a Second Language (ESL) teacher to help support English language learners at the elementary level. Her certifications are in elementary education and ESL. Ms. Dalton began her teaching career as an instructional aide for children with special needs at the East Middle School during the 2013-2014 school year. Ms. Dalton's mentor, Ms. Dempsey, is the ESL teacher at the Harbor Grove Elementary School, supporting kindergarten through fourth-grade English language learners. She has been teaching ESL students for 23 years in several public schools in New Jersey and in Pennsylvania.

Mentor participants all met the criteria and qualifications defined in the East School District New Teacher Induction Plan. Each mentor received training in the systematized practices for initiating and continuing reflective conversations with their mentees. Mentors participated in training on the following topics: (a) the seven norms of collaboration, (b) questions for reflective practitioners and for planning conversation, (c)

the collaborative coaching cycle, and (d) classroom data gathering strategies (Dunne & Villani, 2007). All mentor participants followed the mentoring program provided by the district and performed adequately. This limits variability among the mentors' performance. Mentors varied in their nature and personalities but did not vary in their execution of their responsibilities.

### **Structure of Data Analysis**

Analysis of the collected data was driven by the multiple competencies of instructional practices defined by Charlotte Danielson (2007, 2011, 2013). Domain 3 of the Framework for Teaching enumerates observable teacher practices and strategies recommended for effective instruction. This researcher identified the visible behaviors of the new teacher participants as they related to this domain and its listed competencies. Data from coding of these behaviors yielded five predominate and interwoven areas of instructional practice identified in the sample classrooms, which correspond to Danielson's (2011) Framework for Teaching, Domain 3, Instruction. These are: (a) communicating with students, (b) demonstrating flexibility and responsiveness, (c) engaging students in learning, (d) questioning and discussion techniques, and (e) using assessments in instruction. Within these categories, several patterns emerged. Patterns and themes were identified for each observation and interview (see Appendix D). Discussion of evidence of these patterns will include indicators of the frequency and type of these practices observed in classrooms during the mentoring process. As determined by the parameters of this study, these study participants were asked to utilize the reflective practices they had learned in their new teacher induction and mentor

workshops. In addition, mentor observations of their mentees focused solely on the aforementioned practices and strategies defined by Charlotte Danielson.

This researcher will categorize the individual competencies and include a description of the discovered themes. Further description of the indicators or observable behaviors identified within this study will be included as well.

### **Instructional Practices**

**Communicating with students.** Themes identified in relation to Danielson's (2011, 2013) component, communicating with students, as well as the indicators of proficiency for each theme, appear in Table 2 below. Discussion of the data will include the significant characteristics and examples of these indicators.

Table 2

*Themes and Indicators of Proficiency for Component 1, Communicating With Students*

<b>Danielson Components</b>	<b>Themes</b>	<b>Indicators</b>
Communicating With Students	Expectations for Learning	The mentee provided clarity of lesson purpose
	Directions for Activities	The mentee utilized clear directions and procedures specific to the lesson activities

Danielson (2013) described this competency in the following manner:

Teachers communicate with students for several independent, but related, purposes. First, they convey that teaching and learning are purposeful activities;

they make that purpose clear to students. They also provide clear directions for classroom activities so that students know what to do; when additional help is appropriate, teachers model these activities. When teachers present concepts and information, they make those presentations with accuracy, clarity, and imagination, using precise, academic language; where amplification is important to the lesson, skilled teachers embellish their explanations with analogies or metaphors, linking them to students' interests and prior knowledge. Teachers occasionally withhold information from students (for example, in an inquiry science lesson) to encourage them to think on their own, but what information they do convey is accurate and reflects deep understanding of the content. And teachers' use of language is vivid, rich, and error free, affording the opportunity for students to hear language used well and to extend their own vocabularies. Teachers present complex concepts in ways that provide scaffolding and access to students. (p. 59)

In order to determine how new teacher participants communicated with their students, observers examined how teachers communicated learning goals and how they clarified directions and procedures for specific learning activities. The new teacher participants exhibited varied levels of effective communication of their learning goals and objectives both at the beginning and end of the study. Prominent in these findings were observed behaviors of establishing goals at the beginning of their lessons either orally, written, or both. From the onset, the new teacher participants wrote the goals for the lesson and the lesson agenda on a blackboard or Smart Board presentation. However, in most cases, the information written on the board was not discussed once the lesson

began. By the end of the study, the new teachers began to reference the lesson's goals during their lessons by distinguishing the purpose of the lesson and building connections to the task. During the last interview, the mentees indicated their own growth in this area.

For example, when asked during her first interview if she conveyed the learning purpose to her students, Mentee B, Ms. Baker, indicated that she did indeed post the goals at the beginning of each lesson but she did not reference these goals daily:

*I have my goal every single day posted on the board. However, I don't bring their attention to it every day. I realize I need to address the goals more frequently so the students see a connection to the activity and the purpose of the lesson.*

By the end of the study, Ms. Baker expanded on her use of these written goals to support an understanding the purpose of the lesson. She no longer simply posted the lesson's purpose on the board. Instead, Ms. Baker drew upon the function of each lesson, which led the students toward the discovery of the purpose by constructing associations through deductive and inductive reasoning. This mentee expanded on the written goal of the lesson, helping to guide her students to uncover meaning.

By the second interview, Ms. Baker perceived a shift in her instructional practices related to lesson purpose:

*I have on the board the goals and the agenda for...every single day. I include the big ideas...what we are working towards. And underneath that they will see the agenda and they know the steps we are going to take to meet that goal. And I go back to it throughout each day's lesson. We discuss as a class the goal for that specific day and how it relates to the overall concepts being taught over the course of a few days. The students often discover the lesson's purpose through*

*their discussions.*

Mentor B, Ms. Burton, remarked during her second interview with this researcher that Ms. Baker improved in this area once she became more competent in her understanding of the content. This mentor believed that in order to clarify the purpose of a lesson, the teacher must understand the content being taught. Ms. Burton correlated Ms. Baker's lack of articulateness when explaining the lesson's purpose to her inexperience with the eighth-grade science curriculum.

In her first interview, Ms. Burton noted her mentee's lack of clarity in explaining the lesson's purpose.

*I think she lacked the confidence with some of the science content . . . it was her first year teaching this content. . . . I don't think she could, in some instances, during the first observation, she didn't explain things very clearly and kids got frustrated. I know there were several examples where she came to me and she is like, I don't understand this.*

Ms. Burton noted, in her second interview, improvement in Ms. Baker's ability to explain both the lesson's purpose and the content. As the study progressed, this mentor observed a change in Ms. Baker's presentation of her lessons:

*She is an awesome teacher, so I think it is just because she was new with this. I helped her to become familiar with the content. We found different ways to express the purpose of the lesson and to give examples for the kids. By the second observation, she referenced the lesson's purpose throughout and brought her students to an understanding of the "why" of the lesson. (Mentor B, Ms. Burton, Interview 2)*



When analyzing the data from mentee Ms. Adams, a similar pattern emerged as was evidenced with mentee Ms. Baker. During interviews with Mentee A, Ms. Adams believed she often did not address the purpose of her lesson. However, she noted in her second interview that she focused on the lesson purpose by allowing the students to explore the goals and objectives of the lesson through a constructivist lens. As the study progressed, it was apparent from both the mentor and mentee interviews that Ms. Adams began to focus her instruction on student inquiry of learning goals and assisted her students in drawing conclusions and making connections to the purpose of the lesson activities. Ms. Adams began to acknowledge that her students should discover the concepts through active dialog supported by the teacher in addition to writing the goal on the board. Her mentor concurred with Ms. Adams's assumption.

During her first interview, Mentor A, Ms. Arnold, noted during her first interview Ms. Adams's struggle to clearly articulate the lesson's purpose:

*That's probably an area for her to work on. It's probably for a lot of teachers to work on. It seemed so basic to just say okay today we're going to talk about fractions. It just seems so obvious to you when you're teaching it just doesn't occur to you to address it at the beginning and throughout the lesson. She has to understand how to guide her students to construct the meaning and purpose of a lesson. This is not an easy feat.*

Both Ms. Adams and Ms. Arnold, her mentor, observed growth in this area as the study progressed. Ms. Adams worked with Ms. Arnold to develop inquiry-based questions where students discovered the lesson purpose through constructing meaning from the concepts being taught.

Mentee A, Ms. Adams, commented during her second interview that she had begun to convey the lesson purpose through a constructivist lens:

*Well, I think it is how I convey the learning purpose. The students convey it to me. The students really show me the purpose of the lesson and what they have learned through different ways. I introduce the concepts by exposing the students to information. They then take this information and compose meaning . . . I guide them to identify the big idea.*

This researcher's observations of Ms. Adams also indicated a progression of growth in this area. Field notes from the first two researcher's observations included sparse evidence of clarity of lesson purpose and/or well-defined directions. For example, in the first observation of this new teacher participant, the students were unclear as to how they should proceed with building a three-dimensional ski resort. Throughout this lesson, this researcher identified multiple questions from students asking for clarification of the task. The students were not sure how to proceed due to the absence of clear directions.

However, notes from the researcher's fourth observation included evidence of clarifying the directions and guiding students to discover and comprehend the purpose of the lesson.

*This lesson is the second part of an experiment about electricity. During our postobservation discussion, Ms. Adams explained that in day 1 of the lesson the students were given materials and asked to create a battery with these materials. She explained to me that she wanted them to explore the "how" with simply a potato and wires without relying on research. During day 2, Ms. Adams started*

*the lesson with a question relating to why they did the experiment the previous day. Ms. Adams asked the class, “We were exploring last time. Now, how do you think it works?” (Mentee A, Ms. Adams, Observation 4 field notes)*

Communicating lesson purpose and directions for assignments can be challenging for teachers of English language learners. There are multiple barriers to understanding for some of these students. Language proficiency as well as academic levels often impact students’ ability to comprehend what is spoken and written. Mentee D, Ms. Dalton, was challenged to master this competency as an individual new to teaching as well as new to teaching English language learners. Ms. Dalton did recognize her individual growth in her understanding of the need to use appropriate strategies to clearly communicate directions to her English language learners and her understanding of the content. As indicated in her interviews, Ms. Dalton noted the importance of lesson preparation and content knowledge in the use of these appropriate teaching strategies to meet the needs of her students. Ms. Dalton struggled with identifying and absorbing all of the content being taught for varied grade levels and subject matter. In addition, Ms. Dalton had to revise the content and her delivery of the content for the English language learners. This struggle often led to difficulty articulating the purpose of a lesson:

*For me I think it’s about the lesson and how comfortable I am with what I’m going to teach. So if it’s a skill or strategy that I’m really comfortable with and I remember how I learned it, I am confident teaching it. I think I can convey it really well. So obviously preparedness really helps. So, if it’s something that I’ve taught before or I’ve had a lot of time to really think about how I’m going to teach it or how I’m going to convey it, it goes a lot better instead of just throwing*

*it together.* (Mentee D, Ms. Dalton, Interview 1)

During the second interview, Ms. Dalton verbalized her improvement in providing clear directions and procedures to her students as well as conveying the purpose of the lesson. She believed that her conversations with her mentor facilitated her growth in this area:

*My mentor talked to me a lot about our type of student and what they need to access the curriculum. A lot of what I began to do is oral language supported by visuals, modeling, and direct instruction . . . sitting down and doing it with the students until they have enough experience with a certain skill to do it more independently. Before each lesson, I review the purpose and usually use pictures to convey the purpose. As I progress through the lesson, I remind the students of the “why” of the lesson. It is my hope that they will make the connection.* (Mentee D, Ms. Dalton, Interview 2)

On the other hand, her mentor, Ms. Dempsey, saw minimal evidence of these strategies during her observations of Ms. Dalton. Ms. Dempsey’s Collaborative Observation Recording and Reflection sheet for the second observation of Ms. Dalton indicated a lack of clarity in communicating goals and explaining directions. Ms. Dempsey wrote under the section, “What do I wonder?” the following: “*What was the goal of the lesson, word document/typing or creating a speech?*” Ms. Dempsey noted in her interviews that goals and objectives were vague and were not addressed throughout the lesson.

*In the lesson that I saw I did not actually see her convey the purpose. But I didn’t really hear that. . . . So, I am not sure if the purpose of that lesson that day was*

*computer skills or something they were working on that they were just using the computer to produce. I am not sure if she is comfortable with the curriculum for the fourth-grade language arts. I did not see a connection to the core classroom assignment.* (Mentor D, Ms. Dempsey, Interview 2)

Though the mentor did not observe an indicator of competence in this area, this researcher observed Ms. Dalton provide some clear directions and an attempt to identify the lesson's objective during the final observation. The goal was written on the blackboard, and Ms. Dalton verbalized the intention of the lesson on the onset and reminded the students of this purpose throughout of the lesson, as observed by the researcher:

*“We have learned so much more English this year. We learned speaking and listening. [She hands out their poetry folders.] We are going to focus on writing today. We are going to talk about poems. You learned about haiku in your class and in library. We need to read to get more background knowledge of what a haiku is. Today we are going to review the parts of a haiku and write our very own poem.”* (Mentee D, Ms. Dalton, Observation 4 field notes)

There is an inconsistency in Ms. Dalton's ability to provide clarity of the lesson purpose and to provide clear directions. Though Ms. Dalton believed she improved in this area, this researcher and the new teacher's mentor identified minimal proficiency in this competency.

Mentee C, Ms. Cooke, a new first-grade teacher, appeared to understand the importance communication and sought out advice from her mentor to identify strategies to articulate the purpose of her lesson and describe the activities explicitly. Ms. Cooke

noted that she embraced the need to provide clear purpose setting for her students. However, she also realized her need to slow down and unambiguously explain the intention of the lesson as well as the directions for the task.

During Interview 1, Ms. Cooke noted her difficulty with this competency:

*I tell them what we will be doing. What the end result should be. What the activity we are going to be doing. What they will learn from it. I remind them during the course of the lesson. However, I do have a hard time sometimes taking my time and explaining the directions. So, I will think they will understand what I am explaining to do first without going into depth. But with the age group I am working at . . . potentially they look at me like “What!” So I think I need to take more time and step back and think about what I am saying first before I spew out.*

As the study progressed, Ms. Cooke focused on her explanations of the lesson purpose and directions for assignments. When this researcher observed Ms. Cooke at the end of the study, Ms. Cooke clarified the directions on how to compose a thank-you letter. She provided examples of greetings and salutations commonly used in letters as well as key words typically used in thank-you letters. Ms. Cooke provided clear and concise instructions while including exemplars for her students to guide their thinking.

*Ms. Cooke explains that they will be writing a thank-you letter to the parent that provided pretzels for the class. Ms. Cooke explains how they are to start their writing of the thank-you letter. She has an example on the Smart Board with the greeting and salutation. For example, the greeting, “Dear Rodriquez Family.” Ms. Cooke instructs the students to include three sentences in the body of the letter. She has the students call out words they might use in this thank-you letter,*

*and she writes the words on the Smart Board. Ms. Cooke instructs the students on how to finalize their letter. She adds salutations such as “thank you,” “from,” “your friend.” She then has the students who are ready for “adult writing” to line up at the front table. She checks each student’s rough draft. (Mentee C, Ms. Cooke, Observation 4 field notes)*

The evidence from this researcher’s final lesson observation field notes included Ms. Cooke’s use of demonstration and her use of models to help guide her first-grade students through the practices of writing a thank-you letter.

In addition, Ms. Cooke’s mentor, Ms. Carver, also noted an improvement in the clarity of lesson purpose throughout her observations of Ms. Cooke’s final lessons.

*She has her essential question always posted and revisits it verbally . . . will preface along the way, like a math lesson I saw, “The reason we are doing this. I want you to think about this and how it can help you. We are doing this because . . .” She gave the reasons why she was teaching them what she was teaching them. (Mentor C, Ms. Carver, Interview 2)*

Expressing the directions for a task as well as clearly explaining the content are closely connected skills required to enhance students’ ability to work independently and to participate cerebrally with concepts presented (Danielson, 2013, p. 59). As mentioned above with Ms. Baker and Ms. Dalton, a new teacher’s confidence in the presentation of the content could increase over the study period due to the participant’s greater understanding of the content and the conversations with their mentor.

In summary, by the end of the study, three out of the four new teachers improved in their ability to articulate the lesson purpose and to direct the students in a task through

scaffolding the directions with visuals such as PowerPoint slides with pictures or diagrams and/or modeling. These three new teachers also moved toward student-centered construction of learning goals and lesson purpose through inquiry-based learning. These new teachers attributed their ability to communicate more effectively to their mentor/mentee dialogic reflection sessions. One new teacher participant continued to struggle marginally in this competency as evidenced in interview responses and observations. Both this mentee and mentor acknowledged that their inability to meet on a regular basis was the cause of this lack of growth.

In addition, this researcher believes that an understanding of content or lack of understanding would not only impact communicating the purpose of a lesson but also influence the teacher effectiveness in additional areas of instructional practices, such as questioning and discussion techniques as well as engaging students in learning.

**Using questioning and discussion techniques.** Themes identified in relation to Danielson's (2011, 2013) component, using questioning and discussion techniques, as well as the indicators of proficiency for each theme, appear in Table 3. Discussion of the data will include the significant characteristics and examples of these indicators.



Table 3

*Themes and Indicators of Proficiency for Competency, Using Questioning and Discussion Techniques*

<b>Danielson Components</b>	<b>Themes</b>	<b>Indicators</b>
Using Questioning and Discussion Techniques	Quality of Questions and Prompts	The mentee utilized questions of high-cognitive challenge, such as cause and effect, inference, making connections, and drawing hypotheses
	Discussion Techniques	The mentee facilitated discussion, with the teacher stepping out of the central, mediating role
		The mentee effectively used student responses and ideas to increase comprehension of content allowing for appropriate wait time
	Student Participation	High levels of all students' participating in discussion were evident

Danielson (2013) describes this competency as follows:

Questioning and discussion are the only instructional strategies specifically referred to in the Framework for Teaching, a decision that reflects their central importance to teachers' practice. In the Framework, it is important that questioning and discussion be used as techniques to deepen student understanding rather than serve as recitation, or a verbal "quiz." Good teachers use divergent as well as convergent questions, framed in such a way that they invite students to formulate hypotheses, make connections, or challenge previously held views.

Class discussions are animated, engaging all students in important issues and promoting the use of precise language to deepen and extend their understanding. These discussions may be based around questions formulated by the students themselves. Furthermore, when a teacher is building on student responses to questions (whether posed by the teacher or by other students), students are challenged to explain their thinking and to cite specific text or other evidence . . . to back up a position. This focus on argumentation forms the foundation of logical reasoning, a critical skill in all disciplines. (p. 63)

Several themes emerged in the data collected regarding questioning and discussion techniques. Most notable was the quality of questions asked of students during lessons. Additionally noted was the number of students participating in class discussion. The quality of class discussion was indicated by the frequency of teacher-posed questions of high-cognitive challenge, including questions with multiple correct answers or multiple approaches. Student participation increased when the teacher stepped out of the

center mediating role, allowing students to explain their own reasoning in give-and-take with both the teacher and their classmates.

New teacher participants exhibited varying levels of competency in the use of higher-level questioning and discussion strategies to increase student cognitive interaction with the content. Initially, the mentees often made decisions about the type of questions they utilized based on their students' academic levels and language proficiency levels and the district's content curricula. Two of the new teacher participants believed that students who struggled academically would have a difficult time responding to questions other than recall. The first-grade and the eighth-grade new teachers taught sections with a wide variety of student academic levels. In the beginning of the study, these teachers posed primarily recall questions or low-cognitive challenge questions for these students. Additionally, the ESL teacher believed recall questions were appropriate for her English language learners due to their lack of language proficiency. When asked about their questioning strategies during their first interviews, these new teacher participants noted that their students struggled with comprehension skills such as drawing inferences, making connections between concepts and text, and identifying key details. These mentees expressed in their interviews that this deficiency in the area of higher-level thinking skills was due to an absence of background knowledge and reading fluency for the general education students and the level of language acquisition as well as background knowledge for the English language learners. Hence, the new teachers concluded that complex questions would be difficult for their students. However, each new teacher participant acknowledged the ability of their students to develop these skills

and each sought to acquire the instructional strategies to support their students in this area.

Three new teacher participants spent a considerable portion of this study attempting to shift their students to high-cognitive levels of discussion with scaffolding techniques, student-centered activities, and creating experiences to enhance background knowledge. As the study advanced, the first-grade, eighth-grade, and ESL mentees began to embrace the mindset that struggling students could indeed answer higher-level questions with support. Through mentor/mentee meetings and discussions, these individual mentees discovered strategies from their mentor to promote a deeper level of questioning and discussion. When a recall question was posed, another question followed. The mentees' follow-up question would attempt to elicit more. The new teacher participants utilized strategies to deepen responses. For example, questions such as "How do you know?" "How do the details support the main topic of the poem?" and "How can you use evidence from the story to support your answer?" became more common as the study progressed.

Conversely, the new teacher of the gifted students began the study with a preconceived notion that her students were capable of responding to higher-level questions by drawing conclusions, making connections between past experiences and among texts, identifying cause and effect, and formulating hypotheses.

In addition to student academic levels, the type of curriculum drove the new teacher participants' use of questioning and discussion techniques. The written curriculum that demands a constructivist approach was believed to dictate the type of questions asked and the level of student discussion. The gifted curriculum and the science

curricula prescribe inquiry-based activities, student-centered learning, and teacher posed questions of high-cognitive level. Therefore, teachers who use these curricula are strongly encouraged to use appropriate questioning and discussion techniques.

At the onset of this study, Mentee B, Ms. Baker, recognized her struggle with guiding some of her students through these inquiry-based labs. She reasoned that some of the eighth-grade students were not academically ready for the level of inquiry required in the curriculum.

*I would change the inquiry-based. I think the curriculum is a little too heavy . . . maybe change it, implementing here and there a little bit. I need to learn how to teach them the strategies of struggling through concepts to try to persevere through the material. Maybe I would do more direct instruction . . . instead of having them struggle through the inquiry. I would give them bigger bread crumbs for the problems at the beginning and lead their thinking in a very specific direction. They could take 2 minutes and collaborate with their neighbor. Some of them may get new ideas, some of them may not, and then we would stop and collaborate as a class, share ideas with the class, and if they are still not getting it and some don't, I'm sorry to say, that's when I need to lead them to it. (Mentee B, Ms. Baker, Interview 1)*

During Ms. Baker's first observation by her mentor, there was discussion as to how to address her struggling students, specifically Ms. English language learners. Ms. Baker reflected on her efforts to ask higher-level questions to students who were active learners of the English language as well as struggling readers. Mentor B, Ms. Burton, provided her mentee with instructional strategies to present the information visually

(models, videos, and PowerPoint presentations), providing concrete examples to encourage the ESL students to respond to questions. Ms. Baker's observed classroom practices and her second interview reflections revealed her ability to embrace the type of questions and activities that promote student metacognition and inquisitive practices. There appeared to be a shift in Ms. Baker's belief with regard to inquiry-based learning. During this researcher's third observation, Ms. Baker asked the following questions while the students worked together to create a future city: "(a) *Describe how you will eradicate the environmental issues that you created in designing your city; and (b) Are there special environmental laws the citizens of your community must abide by?*" As the students discussed their laws, Ms. Baker would listen and then ask why. For example, a student explained that he has created a law around when people can hunt. Ms. Baker asks why he choose that law. He replied, "*They need to limit the amount of hunting so the animals will not become extinct.*"

In addition to the classroom observations and the noted increase in high-cognitive-level questioning through these lessons, Ms. Baker also reflected on her shift in the use of these strategies.

*I think for science it has become easy, because all of our labs our inquiry based where we start with the question. It can be frustrating a lot of times because it is the first time that many students have seen this style of teaching. But, with enough guidance and pushing in the right direction, I found that it could be successful. You know, so you are not just memorizing and forgetting it by the time you get to ninth grade. The labs that we do are really good for that. And then we do STEM [science, technology, engineering, and mathematics] challenges. The STEM*

*challenges are a great example of that because it gives them a problem and then we give them materials and tell them to solve it. And there are not a whole lot of guidelines or parameters. They have to work together, work as a team and come to consensus and try to solve the problem. And then at the end of the challenge we test their solution and see if it works.* (Mentee B, Ms. Baker, Interview 2)

In addition to her recognition of the benefits of inquiry learning, Ms. Baker identified real-life application of concepts to encourage student thinking and build connections to difficult concepts. In order for her students to comprehend the concept of cooling or heating water during this researcher's observation of her lesson, Ms. Baker walked the students through questioning about keeping drinking water cool in the desert. Ms. Baker's experiences as an army soldier in Iraq were used to help the students discover the way to keep her water bottle cool on a scorching 9-hour journey through the desert. Her questioning stimulated their conjecture, which lead to the proper way to maintain suitable drinking water.

Ms. Baker's lesson during this researcher's third observation included questions and discussions leading to students' understanding of how water remains cool in a hot environment:

*Ms. Baker: "When we do a lot a running, when we bring up our heart rates. What happens to your body?"*

*Student: "Your core body temperature goes up. You start to shake."*

*Ms. Baker: "You mean when you get cold. Your body tries to stay warm. But what happens when you get hot?"*

*Student: "You want to get cool, you stand in front of a fan?"*

*(Students respond, “Yeah!”)*

*Ms. Baker: “The fan blows cool air. When we were in Iraq, it was obviously hot. We would drink water. What would happen when I was on a convoy in a Humvee, what would happen to our water bottles?”*

*Student: “The water would get hot.”*

*Ms. Baker: “Who wants to drink hot water? What did I do to keep it from getting hot? I am on the road for 9 hours. What can I do to get it cooler?”*

*(Students call out various suggestions.)*

*Student: “Keep it in the shade?”*

*Student: “If the water is getting hot, can you shake it?”*

*Student: “Cover it with a sock and let the air circulate over it.”*

The new eighth-grade science teacher as well as the new teacher of the elementary gifted students fostered student-centered learning through their questioning and discussion techniques. Though Mentee B, Ms. Baker, struggled with these strategies at the beginning of the study, this participant was able to embrace and implement effective question techniques by the end of the study. While inquiry-based curricula provided the framework for higher levels of questioning and discussion among teachers and students, the two new teacher participants discussed above grew to embrace this type of strategy as a way to develop higher-level comprehension skills and to increase their quality of discussion.

Among the other mentees, the new first-grade teacher maintained that the student’s academic level impacted her students’ ability to think and reflect at a higher level. However, after multiple conversations with her mentor, she began to support the



concept of scaffolding the lessons to differentiate among the multiple levels in their individual classrooms to help promote deeper cognition among all of the students. For example, when Ms. Cooke had students respond to a prompt, some students were asked to explain their answers in one sentence while others were asked to include three or more sentences, but all students were required to explain why they chose a particular topic for their writing.

When analyzing and identifying the new first-grade teacher's use of questioning and discussion techniques, Ms. Cooke's mentor, Ms. Carver, identified areas in which Ms. Cooke used specific questions to expand students' writing in response to a prompt, such as *"What was the character's favorite part? Why does he prefer this part and where did you find what he said this in the story?"* In another example of attempting to enhance a deeper level of discussion, Ms. Cooke had the students brainstorm as a group and then independently write about their experience after the picnic at the spring fair. Instead of simply listing their favorite activity, the students were asked to expand on their choice—to explain why it was their favorite activity. The extension of their responses required students to explain and justify their reasoning and the conclusions they drew from the experience.

*She decided from field day to the following day to talk about field day. Put all the ideas up, brainstorming, you know what did you do for field day. After they did their brainstorming, she had them write, "What was your favorite part of field day?" And it was not just about, "I like the bouncy balls." They had to give their reasons why. OK, there needs to be a "why." Why did you like that? What about it? So, there was always that encouragement . . . that push with them. And that is*

*not for every single one. You know the limits, you know one that gets down the one sentence, "I liked," was probably as much as a struggle as the other child who put down three reasons. So I think the thing with [Ms. Cooke] is to know her students. So she knows where their potential is for thinking.* (Mentor B, Ms. Carver, Interview 2)

Ms. Cooke and Ms. Carver spoke at length before school, during lunch, and after school with regard to their students' learning and to identify appropriate instructional practices to support this learning. Through scaffolding of information and the applicable use of student replies to queries, all students in the classroom were able to express the "why," regardless of their academic levels.

With regard to English language learners in the elementary level, Mentee D, Ms. Dalton, acknowledged a significant change in her ability to effectively question her students throughout the study. She had been struggling with bringing her students to a higher level of discussion. It was her initial perception that her students were unable to question or discuss concepts until they gathered the appropriate listening, speaking, and writing skills associated with English proficiency: *"I ask a lot of recall questions. I am not sure if they understand the vocabulary yet...so I want to review the vocabulary, we don't have a lot of discussion of the words. I am working on it"* (Mentee D, Ms. Dalton, Interview 1).

As the year progressed, Ms. Dalton sought guidance from her mentor to implement questioning techniques to support her students' learning. It was through these exchanges that Ms. Dalton discovered a slightly altered approach to asking students questions, which helped to increase students' questions and their ability to engage in

discussion.

*I didn't think it would be significant but it makes a lot of sense . . . she [mentor] would say, "Do you have any questions, comments, or are you confused?" And that opens up . . . just one more question, one more little part . . . just opens up a whole new opportunity for kids who don't even know how to ask or comment because they are confused about something. . . . It was like . . . oh my gosh . . . it is going to open more conversation with the students. It's difficult because the majority of the population that I have, because they are learning the language, I can't really ask the Webb's Depth of Knowledge on the deeper levels. It is more like DOK 1 and 2 . . . who, what, where . . . now I can move to the "why."*

(Mentee D, Ms. Dalton, Interview 2)

Ms. Dalton gained knowledge of her students' needs through better understanding of how the ESL student learns. Her mentor, Ms. Dempsey, clarified the complexities of this heterogeneous group of students. When she was asked about her mentee's questioning techniques in her second interview, Ms. Dempsey explained the appropriate instruction must be driven by students' educational strengths and needs as well as their backgrounds and language. This mentor stressed the need for appropriate questioning techniques, which includes "wait time."

*But a lot what we need to do is giving them a lot of that ground-level knowledge, that they can start to really absorb it, and process it and then start to formulate questions about it and say "why" and discuss it. A lot of it is discussion for our students. Even third and fourth graders need a lot of time to talk and listen about it, to really process it before they can get it on to paper and get it off the paper.*

*It's the listening and speaking that comes first . . . then the reading and the writing. And that leads to a lot of really deep, rich discussion with English language learners. It really does. I have found myself giving my kids more wait time, more processing time. So, many times we ask the student a question and we want an answer right away. "Didn't you hear me, I want an answer." They need some time to really absorb it and process it. And we really need to take . . . count to five or down from five to really give them a chance to answer. And sometimes for English language learners it has to be 10 minutes. To really give them time to process, to formulate, think and ready to be able to answer. (Mentor D, Ms. Dempsey, Interview 2)*

Dyad A, Ms. Adams and Ms. Arnold, support gifted and talented students. They have both demonstrated inquiry-based student strategies in their classrooms to promote a deeper understanding of concepts and skills utilizing high-cognitive levels of questions. The frequency of recall questions was sparse while the teacher asked a majority of open-ended questions such as, "*How do you think it works?*" Ms. Adams summed up this sentiment during her first interview:

*It's interesting once you learn to let back a little bit and you let them (the students) question one another and quit questioning me...it's some of the stuff they come up with...it's like wow. I never came up with this myself. (Mentee A, Ms. Adams, Interview 1)*

In Ms. Adams's observed lesson with second-, third-, and fourth-grade gifted students on building a battery with a potato, the new teacher had the students in groups of four attempting to create a battery through trial and error. Once they completed this task,

they then used this experience to answer questions about their battery building. Student reflective questions included: (a) “*What was the conductor in our experiment?*”; (b) “*How does the potato help the circuit to work?*”; and (c) “*Why must engineers understand circuits when making electrical appliances?*”

Inquiry and child-centered learning is a staple in the gifted classroom. Both the new teacher and mentor embraced and enhanced higher-level thinking skills in their activities. They often referred to the formation of their activities as “thinking outside the box.”

In summary, the questioning and discussion techniques used by both the new teachers and their mentors were influenced by the district curriculum and by teacher beliefs in how students learn. After dialogic reflection with their mentors, the mentees demonstrated growth in the ability to pose more effective questions and elicit discussions among their students. The teacher participants’ uses of effective questioning and discussion strategies were strongly influenced by their beliefs and their conversations with their partners.

**Engaging students in learning.** Themes identified in relation to Danielson’s component, engaging students in learning, as well as the indicators of proficiency for each theme, appear in Table 4. Discussion of the data will include the significant characteristics and examples of these indicators.

Table 4

*Themes and Indicators of Proficiency for Competency, Engaging Students in Learning*

<b>Danielson Components</b>	<b>Themes</b>	<b>Indicators</b>
Engaging Students in Learning	Activities and Assignments	The mentee uses learning tasks that require high-level student thinking and invites students to explain their thinking
	Grouping of Students	Students are actively participating in activities and discussions rather than passively watching their teacher
		Students “work” in interactive groups with group norms and roles
	Instructional Materials and Resources	The mentee uses materials and resources to support high levels of the learning task

Danielson (2013) describes engaging students in learning as follows:

Student engagement in learning is the centerpiece of the framework for teaching; all other components contribute to it. When students are engaged in learning, they are not merely “busy,” nor are they only “on task.” Rather, they are intellectually active in learning important and challenging content. The critical distinction between a classroom in which students are compliant and busy and one in which they are engaged is that in the latter students are developing their understanding through what they do. That is, they are engaged in discussing, debating, answering “what if?” questions, discovering patterns, and the like. . . . A lesson in which students are engaged usually has a discernible structure: a beginning, a middle, and an end, with scaffolding provided by the teacher or by the activities themselves. A critical question for an observer in determining the degree of student engagement is “What are the students being asked to do?” If the answer to that question is that they are filling in blanks on a worksheet or performing a rote procedure, they are unlikely to be cognitively engaged (p. 69).

The observed elements of students absorbed in learning were the types of assignments and activities the students were asked to do, the student grouping options, and the types of materials selected for the lesson. Observers looked for the use of learning tasks that require high-level student thinking and that invite students to explain their thinking. Observers were also alert to students who were actively “working” rather than passively watching while their teacher “worked.” Students working in interactive groups with group norms and roles also indicated engagement.

In some instances, the curriculum drove student engagement, including the type

of activity and the materials and resources chosen. For example, the eighth-grade science curriculum was developed as an inquiry-based lab methodology. Students are guided through the process of these methods as they seek knowledge and understanding of the content. Also, though highly flexible and interdisciplinary, the gifted curriculum in this district incorporates student inquiry into the prescribed activities and assignments. In these two areas, the new teachers were provided with opportunities to utilize activities that engaged all of their students. Though many activities were defined within the curriculum documents, both the science and gifted new teachers noted the value of reflective dialogue between themselves and their mentors in order to enhance the success of these activities.

During the four observations of Mentee B, Ms. Baker, the eighth-grade science teacher, this researcher observed lesson activities centered on specific essential questions pertaining to the curriculum. The activities, materials, and resources, as well as the student groups, were designed to promote student engagement for all students, as the teacher acted as a facilitator. As the study progressed, Ms. Baker exhibited growth in her ability to utilize these activities to enhance student engagement.

For instance, during the solar car STEM challenge activity, observed during the fourth observation, Ms. Baker had groups of students design and create a functioning model of a solar car using commonly available everyday life materials and some teacher-supplied materials to gain an understanding of how to use solar energy as an energy source. As a result of collaborative discussion with her mentor and the other eighth-grade science teachers, Ms. Baker developed small groups activities. Individual students assigned to specific jobs were given the opportunity to participate in this activity to create



a working model of a car powered by solar energy. Each job included opportunities for individual students to gather materials, keep the team on task, coordinate the building of the car, coordinate testing of the car, and report out by explaining the plan and solution.

For example, the testing coordinator was required to:

- Coordinate tests needed to check success for the team,
- Decide when tests of ideas were needed during the challenge,
- Run the tests on test day,
- Make sure the challenge captain knew what data to record during the test day,
- Get involved by talking, doing, and listening.

The use of “team” jobs for grouping students allowed each student to participate in the activity in a meaningful and productive manner. Once students were assigned their job, Ms. Baker reviewed their roles and responsibilities to assure the students worked as a team. Each function of the team involved reflective and higher-level thinking tasks. It was apparent from observing the students’ interaction as they worked in these groups that they took their task seriously. Ms. Baker indicated in her second interview that her students benefited from this type of inquiry-based activity. She believed all of her students were actively and cognitively involved in the learning process.

*I think for science it is easy, because all of our labs our inquiry-based where we start with the question. It can be frustrating a lot of times because it is the first time that many students have seen this style of teaching. But, with enough guidance and pushing in the right direction, I found that it can be successful . . .*

*So its challenging for a teacher to get them to realize that this is a different way of learning and this is the way will help you remember it past eighth grade. You know, so you are not just memorizing and forgetting it by the time you get to ninth grade. The labs that we do are really good for that. And then we do STEM challenges. The STEM challenges are a great example of that because it gives them a problem and then we give them materials and tell them to solve it. And there are not a whole lot of guidelines or parameters. They have to work together, work as a team and come to consensus and try to solve the problem. And then at the end of the challenge we test their solution and see if it works. (Mentee B, Ms. Baker, Interview 2)*

The most notable change in promoting student engagement engaging happened with Ms. Baker. After discussion with her mentor, Ms. Baker was able to modify her instruction to involve three English language learners into the STEM challenge. At the beginning of the unit, Ms. Baker was unclear as to how she could teach the students who did not speak English. Ms. Burton, her mentor, approached Ms. Baker about her difficulties in engaging non-English-speaking students in the lesson through the use of the Collaborative Observation Reflection and Recording sheet after the first observation. The following are the questions Ms. Burton noted in the “What do I wonder?” and reflection discussion sections of the sheet.

1. *Why aren't ESL students working on science in the back—they are just sitting there, not part of the lesson, working on social studies together.*
2. *What could you have done differently – made a requirement to use the board to show a visual.*

3. *ESL students had an opportunity to work with their vocabulary during the group project—after that they worked on social studies.*
4. *How can these girls become more engaged in the lesson?*  
*She was having a difficult time explaining the concepts so that they are clear. (Mentor B, Ms. Burton, Observation 1)*

Reflective practices between the new teacher and mentor led the teacher to facilitate greater student engagement by overcoming the language barrier. When Ms. Baker's mentor was asked during the second interview, "Do you believe your mentee was able to reflect at a deeper level after your discussion of his or her lesson?" Ms. Burton explained how their reflective dialogue impacted Ms. Baker's instructional practices with regard to student engagement.

*I know definitely when we had our formal observation meetings there were some things that we talked about, particularly the ELL [English language learners] population. We did talk about that because I observed a class that had ELL students. Maybe some ways to get them engaged more. And I think that helped because actually three of her ELL girls became a part of the "Shark Tank" at the end of the year. During my observation they were sitting in the back of the room working on social studies work. They weren't even engaged in the class. There was no mention of getting them refocused or anything. I brought that up to her in our conversation and provided some strategies to engage these learners. Then all of a sudden they're one of the top students that were chosen for the "Shark Tank" to present to the entire eighth grade. They presented in front of the entire eighth grade. I hope that helped that engagement more in science. (Mentor B, Ms.*

Burton, Interview 2)

Through reflective dialogue with her mentor, Ms. Baker grew in her understanding of inquiry-based activities and how they contribute to student learning and engagement.

Mentee A, Ms. Adams, the elementary gifted teacher, utilized multiple activities to engage her students in learning. While involved in discussion with her mentor, the teachers identified which activities chosen for specific lessons would indeed involve student higher-level thinking. Ms. Adams described these activities as student-centered. Observation field notes of two of Ms. Adams's lessons indicated student-centered learning tasks that promoted student engagement. Ms. Adams chose student research presentations and a lab approach for the two lessons. This researcher observed students' presentations, which were enthusiastic, knowledgeable, and comprehensive, indicating deep engagement.

*It was first instructed and then I try to have some of the lesson, some kind of project at the end where they have reiterated what they have learned . . . I was videotaping it. They engaged in conversation and discussion. You talk about student-centered and I didn't really realize they were even that student-centered . . . But when I replayed it I realized they are really engaging. (Mentee A, Ms. Adams, Interview 2)*

During the fourth observation, this researcher observed involved student inquiry into the creation of a battery utilizing a potato. Again, students were highly enthusiastic and engaged in vibrant discussion between themselves and with the teacher.

The students were grouped, given specific materials (potato, nails, and mini jumper wires), and instructed to create a potato battery through trial and error. Once the students worked as a team to create their own battery, they observed a YouTube video on making a potato battery. As the students observed the video, Ms. Adams paused to ask highly cognitive questions such as comparing and contrasting the demonstration on the video to the students' experiment. At the end of the lesson, she reviewed what they had learned from their inquiry into creating a battery.

Ms. Adams's mentor, Ms. Arnold, commented on her mentee's ability to engage students in learning:

*If there is anything that Ms. Adams has improved at is she is not just skill driven. You know it is not like I am going to pull you and we are all going to work on multiplying fractions. She really does come at things from a project point of view. I love little things she does. She tells them you are going to get into a group and pick your leader. Or she had this one activity . . . it was to make a potato battery. But she didn't tell them what to do the first time. I couldn't believe she didn't. I was so impressed. I was biting my tongue. I was like, "Don't get involved. Don't get involved." She is trying to do a lot of very higher order types of things.*

(Mentor A, Ms. Arnold, Interview 2)

Both the elementary gifted teacher and the eighth-grade science teacher identified curricula as the driver of the activities or assignments used in a lesson. Through their reflections, these new teachers and their mentors understood the importance of successful implementation of this curriculum. Though the elementary ESL teacher and the first-grade teacher did not view their curricula as "inquiry-based," students were often

intellectually engaged in their lessons. Through appropriate student grouping and selection of differentiated materials and resources, these new teachers did indeed find activities to engage all of their students. However, the level of engagement varied as the study period progressed. By the end of the study, these new teachers referred to the use of hands-on activities with regard to drawing students into the lesson and teaching to their learning styles. When Ms. Cooke, Mentee C, was asked about student engagement, she identified her use of manipulative and concrete models such as word rings and graphic organizers to establish this engagement:

*I think to use a lot of hands on experiences . . . a lot of math games. I make a lot of cards for word families. I try to be a little bit more hands on. They each have a card. Sometimes I feel like the phonics and the phonemic awareness and all that stuff in the program is verbal, verbal, verbal...listening. I try to make it more hands on for them. So I make a lot of games. (Mentee C, Ms. Cooke, Interview 2)*

Ms. Cooke's mentor, Ms. Carver, indicated in her second interview that Ms.

Cooke did engage her students in learning:

*Definitely in the language arts. She has said that she much prefers working in that area. Oh, but the math lesson I saw was great. But, even when you look at what is up on the walls or when she has something in her hands and I ask, "What are you going to do with that?" And she will say, "I am going to try such and such." So, you know, she was always going down a different avenue . . . and how to make the Wonders [reading/language arts program] . . . keep their interest, keep them engaged.*

Mentee D, Ms. Dalton, had to take the prescribed curriculum used in the core classes and modify them for her English language learners. At the beginning of the study, Ms. Dalton struggled with this modification because she needed to learn the curriculum and understand the complexities of her students.

*If I'm using a graphic organizer I got from the curriculum or teacher-made resource, then I might tweak that a little . . . because of the subgroup that I work with being English language learners . . . some things work for them that they see in the classroom and sometimes it fails. So I may have to create my own material. . . . Sometimes it's on the fly during the lesson and sometimes after a lesson I start to create something for the next time and it may look different depending on the grade level. So it gives me lots of opportunities to see what would I do with this group. What can I do differently in this group? What do I need to do better next year when I try to teach? (Mentee D, Ms. Dalton, Interview 1)*

When this researcher first interviewed Ms. Dalton's mentor, Ms. Dempsey, she indicated the difficulties of teaching English language learners. Ms. Dempsey believed she needed to guide her mentee through this process:

*The activities and assignments . . . foster deeper thinking . . . Sometime, we'll do, I think we talk about this; I hope we do. Sometimes our kids come to us with assignments they need to do for their actual classroom, and as we support them through it, we break it down into smaller pieces for them and offer support that is broken into smaller pieces. And you kind of work with the student to figure out what they might already know and how they can apply it. Then they can start to*

*move forward with it. Sometimes they might not have the language to put with it, but once you build a little more of a background knowledge, then they can move forward with it. (Mentor D, Ms. Dempsey, Interview 1)*

As the study period progressed, Ms. Dempsey reported some—but not significant—changes in Ms. Dalton’s practices to enhance student engagement. During our last interview, Ms. Dempsey felt that the lesson she had observed did not include an activity that fostered engagement. She was unsure as to why the students were typing information on a laptop. She questioned whether the students were learning how to use Microsoft Word or learning how to create a speech. The activity did not have a visible structure, and it did not appear to challenge the students cognitively. Ms. Dempsey commented on her Collaborative Observation and Reflection Recording sheet under the column, “What do I wonder?” her confusion as to the purpose of the use of the activity chosen for this mentee’s lesson.

In summary, the new teachers encouraged more student engagement by utilizing instructional strategies they had not used during their first observed lessons. After their dialogic reflection sessions with their mentors, learning tasks utilized by the new teachers appeared to promote a higher level of student involvement. The new teachers improved in their ability to cognitively engage their students with regard to their use of inquiry-based and student-centered activities and assignments. Furthermore, in addition to high quality learning tasks, these new teacher participants began to utilize flexible grouping and appropriate instructional material and resources that promoted student thinking and reflection.



**Using assessment in instruction.** Themes identified in relation to Danielson’s component, using assessments in instruction, as well as the indicators of proficiency for each theme, appear in Table 5. Discussion of the data will include the significant characteristics and examples of these indicators.

Table 5

*Themes and Indicators of Proficiency for Competency, Using Assessment in Instruction*

<b>Danielson Components</b>	<b>Themes</b>	<b>Indicators</b>
Using Assessments in Instruction	Monitoring of Student Learning	The new teacher pays close attention to evidence of student understanding
	Feedback to Students	The new teacher circulates to monitor student learning and to offer feedback
	Student Self-Assessment and Monitoring of Progress	The new teacher has the students self-assess their own work

Formative assessment, or the determination of the level of student comprehension during the learning event, is a foundational component of good instruction. Good teachers not only continually monitor students’ learning and understanding of content, but they offer quality feedback to students as well. Additionally, with practice and modeling, students should demonstrate self-assessment and monitoring to adjust the levels of their own progress. A classroom observer should see indicators of teaching skills that include:

- The teacher paying attention to evidence of understanding,

- The teacher circulating through the classroom in order to monitor student learning and offer feedback,
- The teacher posing specifically created questions to elicit evidence of student understanding,
- Students assessing their own work against established criteria.

Danielson (2013) described this competency as follows:

Assessment of student learning plays an important role in instruction; no longer does it signal the end of instruction; it is now recognized to be an integral part of instruction. While assessment of learning has always been and will continue to be an important aspect of teaching (it's important for teachers to know whether students have learned what was intended), assessment for learning has increasingly come to play an important role in classroom practice. And in order to assess student learning for the purposes of instruction, teachers must have a "finger on the pulse" of a lesson, monitoring student understanding and, where appropriate, offering feedback to students. (p. 76)

Throughout the duration of this study, the researcher was able to identify varied formative assessments utilized by both new and mentor teachers. The most predominant method of this informal assessment was circulation through the classroom to monitor progress, on-task behavior, and understanding of basic concepts.

Mentor A, Ms. Arnold, referred to her mentee, Ms. Adams, during our first interview:

*She is someone who is actively engaged when the kids are working. She would ask, "How are you doing? Where are you in the process?" She was very involved in the process of checking in with the students as they were working.*

Mentee B, Ms. Baker, commented on her own teaching during the first interview: *I never stop moving. All of our lessons are labs . . . every single day they're doing activities and working together. And I don't just ever stop and sit down. That's when you have to walk around and see what they're doing, read over their shoulders, see what they are getting and stop and talk to them when they're not.*

Mentor B, Ms. Burton, agreed with Ms. Baker in the second interview: *"She did move around the room quite a lot checking student work. She was very much all over the room. Very energetic."*

Ms. Dalton's mentor, Ms. Dempsey, concurred in Interview 2: *"Yeah, she walked around. I don't want to use the term 'hovered,' but she kind of walked behind a group of three or four girls checking as they worked on the assessment."*

Mentor C, Ms. Carver, noted the same behaviors during her second interview: *Yes, I saw as she moved around the room and looked to see if they were on task and doing what they were supposed to be doing. Whether it was moving a manipulative or their finger pointing to what they were supposed to do to be at the right place . . . in that respect.*

From the frequency of this circulating behavior, this researcher infers that the teachers were aware of the importance of monitoring student understanding and progress and believes that they were actively monitoring their students' learning.

It should be noted that while both new teachers and mentors believed that teachers

were monitoring student learning, the observations and interviews demonstrated only that the teachers were circulating and monitoring on-task behavior. No evidence was offered that teachers posed questions to specifically elicit student understanding. Questions such as, “How are you doing?” and “Where are you in the process?” give indications of on-task behaviors but do not address deep understanding of content. It is significant that neither mentors nor new teachers made this distinction.

Teachers did use other methods of quickly checking basic student understanding. Some reviewed student notes or had students fill out response cards or ticket-out assignments. Mentee C, Ms. Cooke, used a clipboard during her math lessons to informally gather information. She checked those students who answered incorrectly or who seemed confused so that she could provide the necessary attention.

Assessing the progress of English language learners presented different concerns. Due to a perceived lack of summative assessments for this group, Mentee D, Ms. Dalton, relied heavily on informal assessments to help drive her instruction. She took copious and frequent notes on her students’ progress, noting specific areas where they struggled during units of study. This note taking had a dual purpose: first to drive instruction, and second, to respond to questions and concerns from administration and advocates.

*Because I work in small groups I can monitor throughout a lesson more easily than in a larger group setting. I am able to stop and review or fill in the blanks for them if there is something they missed. Or go back maybe more easily than a whole group setting. I am able to monitor and adjust in the moment. However, there is not a lot of formal assessment within ESL. So, I always keep a log of my student work of evidence of what they learned throughout the year so if questions*

*come up from the teacher, from the principal or maybe from CCST [Child Study team meeting] there is something like that. If there is a really big concern . . . then I can refer to the beginning of year. I have these samples where the student didn't understand this concept . . . and throughout the year we see how they have improved. Like it is all formative . . . most of its formative assessment except our one ACCESS [Assessing Comprehension and Communication in English State-to-State for English Language Learners] [in the middle of the year. (Mentee D, Ms. Dalton, Interview 2)*

Mentor D, Ms. Dempsey, remarked in her second interview:

*I do believe she does do some monitoring and note taking. I know I always said I am big on taking some quick little notes here and there. I do think she does do that and it does help drive some of her instruction and that she has to modify some lessons based on their needs or what she has observed.*

Mentee B, Ms. Baker, found it the most difficult to consistently monitor her students learning throughout the study period. This was the area in which she felt she needed to grow. She attributed her struggles with the number of students in her four class periods. As an eighth-grade science teacher on a team comprising of 107 students, Ms. Baker sought to find ways to differentiate her instruction through informal assessments. After several meetings with her mentor, Ms. Baker began to employ the use of a physical response method for students to indicate understanding or lack of understanding. Ms. Baker called this her “thumb-ometer,” a variation of the word thermometer.

*You look for the signs of frustration, you look for the understanding. We use something and a lot in my class called the “thumb-ometer” instead of*

*thermometer. They put their thumb in front of them, so if they're embarrassed the other students won't see it. It's up if they're good, if they're not quite sure it's down.* (Mentee B, Ms. Baker, Interview 1)

Once a teacher assesses a student's level of understanding, it is important for the teacher to provide "timely, constructive, and substantive" feedback (Danielson, 2013, p. 76). Throughout the study, evidence of providing feedback to students after informal assessments fluctuated among the new teacher participants. Sporadically, the new teacher participants replied to student responses during quick check-ins, guided students through student independent practice, and provided immediate replies to student queries. There was more evidence of providing student feedback during group activities where students were engaged in some form of informal assessment.

Mentee C, Ms. Cooke, provided practical guidance to her students during small group activities. During the writing workshop sessions, the students would individually conference with Ms. Cooke. When the students' rough drafts were complete, this new teacher participant met one-on-one with each student to review their writing and to make suggestions for modifications.

A critical component of assessing students' learning is student self-assessment and the monitoring of their own progress. When teachers help students develop awareness of their own thinking and learning processes, they are helping them think about the effectiveness of the strategies they use in reaching the goals they have set. Essentially, the students are "thinking about thinking," a process known as metacognition. As a whole, the use of an embedded metacognitive strategy of evaluating

one's own progress is an effective way of helping students develop ownership of their own learning (Barell, 1985).

There appeared to be a direct connection to the type of activity and the level of students' self-evaluation. Evidence of student monitoring of their own progress was most prominent during lab experiments and STEM activities in the eighth-grade science class and elementary gifted classes. For example, students monitored their responses to math word problems during the math lesson of Mentor A, Ms. Arnold. These students would identify where they were not successful and self-correct to achieve the appropriate answer. Mentee A, Ms. Adams's students examined their hypothesis on how to create electricity from a potato after watching a video. The students, through trial and error, attempted to classify the elements of a working battery. In addition, eighth-grade science students tested their design to build a solar car before their final presentations.

Throughout the study period, this researcher identified varied formative assessments utilized by new teachers to obtain the scope of student understanding during their lessons. Although all four new teachers used formative assessment during their first observed lesson, these new teacher participants primarily used observation to ascertain student learning. As the study progressed, the new teachers increased their use of the following methods: using purposely designed questions, circulating throughout the classroom to observe students' performance, and identifying learning through student feedback. New teacher participants improved in their ability to monitor student learning due to their dialogic reflective meetings with their mentors. By the end of the study, the new teacher participants wove additional modes of assessing student learning, such as

questioning and teacher feedback, hand signal responses, and think-pair-share, throughout their lessons.

**Demonstrating flexibility and responsiveness.** Themes identified in relation to the Danielson component, demonstrating flexibility and responsiveness, as well as the indicators of proficiency for each theme, appear in Table 6. Discussion of the data will include the significant characteristics and examples of these indicators.

Table 6

*Themes and Indicators of Proficiency for Competency, Demonstrating Flexibility and Responsiveness*

Danielson Components	Themes	Indicators
Demonstrating Flexibility and Responsiveness	Lesson Adjustment	The teacher adjusting instruction in response to evidence of student understanding or lack of it

Danielson's Framework for Teaching (2011, 2013) includes a component where teachers demonstrate flexibility and responsiveness within their teaching strategies. This component is strongly related to the effective use of formative assessments. In other words, during instruction, if formative assessments show that students are confused or struggling, it may be necessary to modify or change the instruction or activity. Similarly, a strong teacher may decide to follow the interests or questions of the students and veer slightly from the planned lesson to accommodate her students. The ability to make these changes within the instructional period is a sign of a skillful teacher.

Danielson (2013) describes this competency as follows:



“Flexibility and responsiveness” refers to a teacher’s skill in making adjustments in a lesson to respond to changing conditions. When a lesson is well planned, there may be no need for changes during the course of the lesson itself. Shifting the approach in midstream is not always necessary; in fact, with experience comes skill in accurately predicting how a lesson will go and readiness for different possible scenarios. But even the most-skilled and best-prepared teachers will on occasion find that either a lesson is not going as they would like or that a teachable moment has presented itself. They are ready to respond to such situations. Furthermore, teachers who are committed to the learning of all students persist in their attempts to engage each student in learning, even when confronted with initial setbacks. (p. 91)

Within this study, observations focused on two themes: (a) the ability and willingness of teachers to adjust a lesson in order to increase student understanding, and (b) to veer slightly from the planned lesson in order to follow student interests and questions.

The new teachers employed formative assessments to check for student understanding. At the beginning of the study, these new teacher participants recognized the need to modify their lessons but only after the lesson implementation and during their reflective dialogue with their mentor. They did not shift or modify the lesson strategies or materials during the lesson. By the end of the study, however, the new teacher participants were better able to make modifications during the instructional period. This was after their reflective conversations with their mentors.

Mentor A, Ms. Arnold, noted during our first and second interviews the shift in

the flexibility and responsiveness of Ms. Adams, Mentee A, during a lesson:

*She was doing the activity for the first time and I remember one of the kids was having an issue about where the things were going on the map and she did say something to me like, “You know I think I need to fix that for the next time.” So I think she was thinking ahead about how she would do it differently the next time. But she didn’t do it on the spot. (Interview 1)*

After the second observation, Ms. Arnold noted during Interview 2: *“She improved in this area. She pulled over a group. When she did pull them together, she changed up the lesson and showed a model. Yes, she seemed very flexible now.”*

Mentee Ms. Adams agreed with her mentor with regard to her ability to alter activities or strategies during a lesson. Ms. Adams described an activity she developed utilizing historical fiction novels, the Dear America book series. Ms. Adams was perplexed when the students completed the assignment quickly. She had not planned for an alternative or extension activity. Once she realized the need to differentiate within her gifted classroom and prepare for lesson modifications, Ms. Adams was able to make adjustments. When Ms. Adams was presented with student requests for literature on social injustices during a lesson on the virtue of community, Ms. Adams was prepared to shift the lesson to include her students’ interest.

*So, like back to square one. So I just really revamped things and found a different book that was out and spoke to what they were passionate about. They were really passionate about injustices. Why do people do that? Why would anyone allow someone to be killed because of the color of their hair, the color of their eyes? Then we brought it back to Malaya. For the kids, that changed us. That changed*

*my instruction. So where they were at the end . . . and where their interests were.*

(Mentee A, Ms. Adams, Interview 2)

During the study, Ms. Baker, Mentee B, recognized a shift in her own ability to modify lessons during implementation. She noted her own struggles with the knowledge of her students' abilities and the curriculum pacing. Though she understood the importance of differentiating instruction, Ms. Baker found it difficult to adjust or slow down the pace for fear she would not complete the units of study. After conversations with her mentor, Ms. Baker was able to recognize the importance of student learning as opposed to completion of the science text. This ability to modify one's lesson depends on a "teacher's store of alternate instructional strategies and the confidence to make a shift when needed" (Danielson, 2013, p. 81).

Ms. Baker commented on her own teaching during Interview 1:

*I struggled a lot knowing that it's okay to stop and slow down. It's like I have the curriculum and I have to get through this . . . I have to finish this lab. I have to get all this information they need to learn in eighth grade. And I was scared I wasn't going to finish.*

By the end of the study, Ms. Baker noted a shift in her ability to alter lessons midstream:

*With my mentor's help, I think I've learned how to just embrace it. I just have to slow down and what we don't get to we just won't get to . . . I found that I was adjusting more for their not understanding this past year. I would ask question in preparing them to wrap up a lab or to wrap of a lesson or a unit and realize that they're not all with me. I would stop and give it another try or a lot of times I*

*would go back and find a different activity. I feel that I grew as a person, not just as a teacher. I feel I learned a lot this year. Some hard lessons, personal wise. I learned a lot about my teaching too. It was a rough year. (Mentee B, Ms. Baker, Interview 2)*

Ms. Burton concurred with her mentee, Ms. Baker, and observed her growth in this area both during their reflective conversations and during a final observation.

*There was an example where she would come to me and say, “The kids aren’t getting this. What am I doing wrong?” There was one lesson in particular where the kids were not getting the concept, so she threw out an everyday example. I can’t remember specifically. I know it is on that document that I sent you. It was about Jell-O. She drew it on the board. It was not something I am sure she had in her lesson plan. But it was something that she could pull from her bag of tricks. (Mentor B, Ms. Burton, Interview 2)*

Interview and observation data indicated growth in this competency for Ms. Cooke, Mentee C, as well. Ms. Carver, Ms. Cooke’s mentor, explained that teachers often hesitate to alter lessons midstream after time-consuming and meticulous hours of planning. Ms. Cooke struggled with lesson adjustment during implementation of her lessons at the beginning of the study period. Mentor C, Ms. Carver noted during the first interview Ms. Cooke’s struggle to modify instruction during her lesson.

*I think she’s working on it. I think it’s a really hard thing whether you’ve been in the profession for a really long time or not and you have spent half a day on a weekend creating an activity. Then you go to deliver it and you find out it’s not appropriate for everyone and that you need to adjust it. So I think even for a*

*newer teacher that's got to be devastating. [She laughs.] So I think that is something I think the experience and everything it needs to come with time.*

As the study progressed, both Ms. Cooke and Ms. Carver identified a shift in lesson flexibility and response to student learning: “*Definitely, either I am re-teaching or I move forward if I feel they are grasping it,*” (Mentee C, Ms. Cooke, Interview 2). Mentor C, Ms. Carver, agreed in Interview 2:

*Yeah! She will reword, ask the question in another way. Maybe, do an analogy for a better understanding. Depending on what the situation is she will . . . if it looks like there are too many blank faces, she has just said, “OK, hold on, I want you . . . instead of using the Smart Board, she will get the chart paper and do another type of a diagram. So you know she’s feeding into that learning through different avenues to get as many as she can on board.*

At the beginning of the study, Mentee D, Ms. Dalton, struggled to modify her activities or strategies during the lesson. This is the same teacher who labored to learn how to modify her ESL students’ core curriculum. Once Ms. Dalton became more proficient at grasping the core English and math elementary curriculum, she was able to prepare for and adjust her activities and strategies in response to her students.

Ms. Dalton noted during Interview 2 how she modified a lesson on Memorial Day:

*They had come in, and I had not prepared it but I put up a W K L chart. I need to find out what they know and what they want to know. So I just pulled out a large piece of paper for them . . . It is one of those on-the-fly things sometimes it just clicks . . . of being really reflective. I’m putting the brakes on here I need to*

*backup and see. And that was an example of on the fly completely change what I wanted to do. But when I did it was more valuable.*

Mentor Ms. Dempsey agreed in Interview 2:

*I do think she does modify some things. We've talked about different times, like . . . either one of us has done a lesson and it went great or it didn't go great. You know, I've used the words, "It was a epic fail." Those are my own words for things that I have done. Um, it is not that it was a failure, but I set up a lesson that just didn't work with that group of students. Or maybe what I was introducing, it was a new concept. So, you have to be reflective and sometimes think on the spot and adjust. I do think she does that.*

With regard to lesson adjustment, the study participants noted the importance of reflection during and after the lesson. Two of the four participant dyads were able to meet on a regular basis to reflect on and prepare for their upcoming lessons. Both the eighth-grade science and the first-grade teachers worked in the same buildings and carved in time before, during, and after school to meet. While the elementary ESL and gifted new teachers were unable to meet regularly with the mentors, they did attempt to reach out to discuss their lesson planning via email or phone. However, there was less regularity in their reflective conversations before and after lesson implementation. All study participants employed independent reflective practices during and after their lessons. As the study progressed, all four new teacher participants began to alter lessons midstream, slow down, or move quickly through a particular portion of a lesson in response to their students' performance.

## Teacher Perception of Reflective Practice

Observable behaviors exhibited during the new teachers' lessons indicated a growth in the use of the powerful instructional methods outlined in Danielson's (2011, 2013) Framework. However, the enduring question of this study is to determine the influence of the reflective practices between dyad partners on this growth. An analysis of the interviews of study participants revealed interesting areas of discussion.

**Dyad A.** During the interviews, participants were asked to comment on their perception of the depth of reflection within their dyad. Because Ms. Adams and Ms. Arnold were not assigned to the same grade levels or buildings, their usual mode of communication was via email or cell phone. Whether in person or remotely, this dyad utilized the Collaboration Observation Recording and Reflection sheet to help facilitate this dialogue.

Both mentor and mentee indicated that they reflected individually on their own teaching practices. Ms. Adams used video to ponder the aspects of her lesson delivery. She guided her self-reflection using the following questions:

1. What went well? Which activities or assignments would I like to use again next time I teach this lesson?
2. What didn't work? How might I change an activity to make it more effective next time?
3. What are students beginning to understand and what are they still struggling with? How might I reinforce the more challenging concepts in upcoming lessons?

Though Ms. Adams seemed to be quite introspective regarding her own work, she found that with the opportunity to collaborate with Ms. Arnold, she was able to reflect at an

even deeper level. This depth grew over time. At the beginning of their relationship, the dyad spent more time on situational practices as Ms. Adams adjusted to a new work environment: *“Honestly, she has offered me more support on the dynamics of the school. I’m trying to make my job more effective interacting with different teams. And I think that’s where she is really helped me with her experience”* (Mentee A, Ms. Adams, Interview 1).

As time progressed, this pair was able to engage in deeper discussions regarding lesson components and instructional strategies. Ms. Arnold noted in her interviews the benefit of using the Collaborative Observation Recording and Reflection sheet to help enhance their dialogue. She believed this tool gave her a method to address concerns or questions: *“If there was something that I wanted to comment on or an issue I wanted to bring up, this was a nice way to raise it. I would just say, “I wondered”* (Mentor A, Ms. Arnold, Interview 1).

For Ms. Adams, this opportunity for deep, collaborative reflection was critical to her continuance in the field of education. Overwhelmed with the comprehensive responsibilities of teaching, she seriously considered leaving the profession until her meetings with Ms. Arnold provided guidance and support.

During Ms. Adams’s second interview, she commented about her appreciation of her mentor:

*I am really happy that I had this year so it made me feel good to finish the way I did. I could not have completed this new stage without my mentor’s support. I don’t know if I would have endured. I don’t know if I would have wanted to continue. I will be honest with you. I probably wouldn’t have stayed. You have a*



*mentor in teaching to make you the best you can be. In teaching with your love of teaching, you really want your colleague to survive. Survive and thrive! And I think as a mentor . . . she is the best in the district. That is why they gave her to me. I was so thankful to be paired with someone of excellence. She gave me different ideas and approaches.*

Ms. Arnold commented during her second interview how she utilized questions to support her mentee:

*I would ask her a lot of questions. That is what I did all the time. That is why I said I loved that one column [Collaborative Observation Recording and Reflection sheet]. Because that was a nice way . . . if I would want to give her some feedback but not have her feel defensive about it. I would say things like, “So what do you think your goal was for this?” or “I’m just curious . . . are you trying in with what the regular education teacher is doing?” or “I am just curious, are you looking at the common core?” or “I am just curious, where are you going to get your resources from . . . are you going to the National Council of Teachers of Mathematics website?”*

Guided by the mentor’s use of the observation document and reflective questioning, Ms. Adams gained confidence and clarity in her instructional role and chose to remain in the teaching profession.

**Dyad B.** Mentee B, Ms. Baker, described her self-reflective strategies throughout the study period. She would reflect during each lesson, then make notes on her curriculum and lesson documents to identify areas in need of adjustment. She commented during both of her interviews that she employed this system to assure she would

remember to discuss a point with her mentor or to modify the lesson. The areas of concern for Ms. Baker drove the topics of discussion between herself and her mentor: *“I think about it as I go through and I keep my lesson plan on my desk. I will write on there my comments, either modify this or it was too difficult . . . so that was my reflection”* (Interview 1).

This dyad had the opportunity to meet before, during, and after school on a daily basis. The proximity of their classrooms and that they worked in the same department, made it easy to meet quickly between classes in order to provide immediate feedback. They also discussed specific lessons during the weekly science content meetings, scheduled formal feedback meetings, and utilized email as well. Both participants agreed that the frequency and ease of these meetings allowed for a deeper, more consistent reflection of their curriculum activities, lessons, and assessments. For example, Ms. Baker shared that one of their lab assessments was modified after she questioned the validity of the wording.

*We sit down and talk about everything, the activity together. We do almost every single activity the same, all the same labs, all the same activities, the same quizzes. For example, when I found the lab, the wording was confusing. I went over and said, “Does this make sense to you?” I talked about it and she (mentor) said, “You know what, you’re right, we will change things.” And we’ve been doing it all year and it’s a great relationship we have.* (Interview 2)

During the formal and informal feedback sessions, Ms. Baker and Ms. Burton believed they were able to reflect at a deeper level than would have been possible outside of this study. Ms. Burton felt the questions on the Collaborative Observation and

Feedback Reflection sheet enhanced their dialogue. As the study period progressed, Ms. Burton observed a significant difference in Ms. Baker's ability to differentiate for her English language learners as well as growth in her knowledge of the curriculum content.

*When we were talking she mentioned some things, how will I say this, she mentioned things I did, different techniques that I used and gave me ideas of how I could do it better. Or she gave me specific examples, a lot of specific examples of what she does when she was teaching that particular type of student. It was like, hey, you were using the iPad to go over this lab. Here is how I do it. She was sharing ideas from her teaching, things she does, what she uses, things that were successful for her. (Mentee B, Ms. Baker, Interview 2)*

This dyad commented on mutual growth as a result of the reflective process. Ms. Baker believed she was able to reflect on her practice through the lens of her mentor. And Ms. Burton believed that she learned to reflect and grow as a teacher through their collaborative conversations, too.

*I think so often when reflecting on a deeper level it's awesome just to have a second opinion. We sit down and bounce ideas off each other all the time. Especially when we're making assessments and things. I will ask her questions and she will ask me questions. We will see if they make sense. We worked through almost everything in the curriculum very closely . . . closer than I have in the past when I was teaching at the other district. Just having another brain there to bounce ideas off and think things through is a huge, huge help. (Mentee B, Ms. Baker, Interview 2)*

While this dyad found value in the reflective process, they also noted some areas

for improvement within their mentor/mentee relationship. Ms. Baker would have preferred more constructive criticism from her mentor. She believed that Ms. Burton adequately shared her own experiences, but was not as able to provide feedback concerning areas for improvement for the mentee.

Ms. Burton perceived herself as too direct or authoritative. She noted, *“I felt that maybe I was imposing on her. And she probably felt like I was being too directive, authoritative.”*

Though there appeared to be a discrepancy in their perceptions of how the mentor utilized the mentoring model, both Ms. Baker and Ms. Burton commented on the advantage of the mentor assignment. They purported that the assigning of a mentor from the same content with close proximity to the mentee helped to increase time for dialogue and, hence, improve their lesson reflections.

**Dyad C.** Both teachers in Dyad C were assigned to the same elementary school, the same grade level, and had classroom locations within the same first floor hallway. This allowed them to meet frequently and informally during the school day as well as during shared scheduled lunch and preparation times.

Like Ms. Baker’s note-taking technique for recording anticipated changes to her content and practice, Mentee C, Ms. Cooke, would often use Post-It notes during a lesson to remind her of potential modifications. This “reflection-in-action” helped to drive her discussions with her mentor (Schön, 1987). During their interviews, the dyad agreed that this individual reflection contributed to deeper levels of collaborative reflection and dialogue, with each gaining insight from the other. Further, Ms. Cooke’s mentor, Ms. Carver, was cognizant of her mentee’s unique teaching style and personality and adapted

her questions with this in mind.

*When my mentee and I talk I will always ask about what she has done, how she felt what she did, how it worked. I will sometimes tell her how I would have handled it but that is not always the most helpful because what works for me may not work for her. So, we need to work with her teaching style . . . we'll look at the whole picture. And then we'll go backwards. It's slow with my mentee because she is an extremely private person, quiet person, and a shy person. . . . However, if she hits a roadblock, if she does not know which direction to go, she will come to me and ask. When you're talking to someone, spring boarding with someone else new, veteran, or in the middle, that's where new ideas start coming and flowing, at least for me. The conversation with someone else spurs the thinking and the ideas. (Mentor C, Ms. Carver, Interview 1)*

Having participated in the study, Ms. Cooke advocated for dialogic conversation as a major support for new teachers. She provided an example of how her contact with her mentor aided in creating and implementing a more effective activity (alphabet books) to engage and teach students their letter sounds. As a result of this collaborative dialogue, Ms. Cooke observed rapid improvement in her students' ability to identify letter sounds, brainstorm words, and write sentences using alliteration.

Ms. Carver smiled when she discussed the successes of her interactions with her mentee. She stressed how much she had learned from the experience. Ms. Carver described this interaction as leading to a "ripple effect." She believed that the mere act of dialoging helped to identify solutions to instructional issues as well as generating additional questions or concerns.

*Well, it was always more of a give-and-take conversation. It was really the dialogue, conversation of just sitting down like you and I are doing now and talking about things . . . probably the bigger benefit of being able to sitting down and having a conversation with someone is the ripple effect. As you are talking about other areas of interests or concerns, questions pop up that you are able to discuss and hash out because it reminds you of something else. That's where more coaching was involved. (Mentor C, Mrs. Carver, Interview 2)*

**Dyad D.** As this was Ms. Dalton's first experience teaching English language learners and also her first experience as a classroom teacher, she struggled in multiple areas. Primarily, Ms. Dalton needed to become familiar with the core curricula for grades 1 through 4 in all content areas. This would have presented enough of a challenge. However, she also had to adapt each curriculum for her specific group of students in all four grade levels. Gaining knowledge of the content became a critical and immediate need. Additionally, she needed to understand the appropriate and effective teaching practices for ESL students. Ms. Dalton described her first few weeks as "panic." In her role as a support for the regular elementary classroom teachers, Ms. Dalton sought out resources and strategies that she could share as well as incorporate into her own lessons. Her mentor, Ms. Dempsey, was her predominant resource through the year.

Ms. Dalton was eager to reflect after each lesson to determine if her students learned from her instruction. She focused on building prior knowledge for her students, believing that this was a key component to their understanding. She also emphasized modeling as a necessity for her English language learners. During the course of the study, her reflective practices grew from a narrow focus on the lesson itself to a deeper

reflection on her own thinking and teaching.

Mentee D, Ms. Dalton, commented in her first interview about her reflection after a lesson:

*Usually after a lesson, I will reflect with my mentor about how well I feel that the lesson went. As far as how smooth the lesson went from beginning with my instruction, with my modeling, even opening up the lesson. What do I need to do better next year when I try to teach?*

In the second interview, Ms. Dalton's deeper thinking was evident:

*I reflect on my teaching practices throughout a lesson and after the lesson, sometimes I can monitor the progress by the students' reactions, whether they get it or not. My mentor helped me to see how important it is to prepare and adjust during a lesson as well as reflect after the lesson. We talked a lot about how to prepare and what techniques will work best for my students.*

Being assigned to different buildings was a serious limitation to this dialogic relationship. Traveling from one building to the other took time away from their conversations and made scheduling conferences difficult. The pair creatively used district inservice time and other opportunities to collaborate, but the experience was made more difficult by the lack of proximity. It was helpful that the mentor, Ms. Dempsey, had previously worked in the building where Ms. Dalton was assigned. Thus, Ms. Dempsey understood the dynamics of the building culture and the student population.

*It really helped to come together as a small cohort and talk about what worked last year. I want to do this coming year and try to make the structure better. That was the main opportunity where I really felt like I could go deeper with reflection*

*with my mentor but unfortunately because we're not in the same building and her interactions are limited in that way . . . it's either call her, email her or text her about something . . . she would respond and it was definitely helpful but not as a deep of a level as teachers who have someone across the hall or next door. But she knows what it's like to be a new teacher in my building. And she was really helpful with any question and asking the right questions. (Mentee D, Ms. Dalton, Interview 2)*

Ms. Dempsey recognized the value of the guiding questions to deepen the collaborative reflection. She also recognized the complexity of Ms. Dalton's position:

*I would say when we have talked about different things she has tried, I would ask her some guiding questions that she would have to answer on her own to think about what she taught and why it might have succeed or not succeeded. How it could be tweaked to improve it . . . more prompting questions that she could answer on her own. Does that make sense? I didn't want to always give her the answer. I wanted her to be able to think about it . . . put it into practice. I think there are so many things that are thrown at her at different times, she is not really sure. I even know as a veteran in my 21st year, there are times that I am overwhelmed and I am not always reflective. I have to stop and breathe and say, "Let me think about this again, absorb it, and see where it goes." And I think that's something that is going to take a lot of time with any new teacher not just my mentee. I think she is growing in that. I think she is starting to reflect. (Mentor D, Ms. Dalton, Interview 2)*



Both mentor and mentee in this dyad recognized the growth of reflective practice in Ms. Dalton and identified the need for more time to develop these skills. Ms. Dempsey commented that this was a “work in progress” and recommended continued mentor support for Ms. Dalton. Ms. Dempsey opined in her final comments that effective and deeper reflection comes with time. She stated, “*And I think that comes with . . . I don’t want to call myself old . . . but with maturity . . . it comes with a little bit of resilience and maturity*” (Interview 2).

The data garnered from observations, interviews, and collected materials yielded evidence of a connection between the reflective practices of the study participants and the instructional practices of the new teacher participants. Through the analysis of the multiple themes and patterns, a positive relationship emerged linking the act of engaging in dialogic reflection with one’s mentor to improved use of effective instructional strategies.

## Chapter 5: Conclusion

*“We do not learn from experience . . . we learn from reflecting on experience.”*

—John Dewey

### Purpose of Study

This is a qualitative study of teachers in a suburban public school district to determine whether a mentor relationship, with training in dialogic conversation, will increase the use of preferred instructional strategies in the classrooms of new teachers. Instructional practices and reflective practices of both mentors and mentees were studied. Instructional practices were observed through the lens of the five competencies of instruction as defined by the Danielson (2011, 2013) Framework for Teaching, Domain 3. Domain 3, Instruction, includes these competencies: (a) communicating with students, (b) using questioning and discussion techniques, (c) engaging students in learning, (d) using assessment in instruction, and (e) demonstrating flexibility and responsiveness.

When aspiring to support and improve the instructional practices of new teachers, school districts have developed varied forms of induction programs. In response to federal and state mandates as well as to local teacher accountability requirements, there has been increasing scrutiny on how a district supports its new teachers. The purpose of this study was to analyze the impact of one form of new teacher support—intensive mentoring—on new teachers’ instructional practices. Intensive or “educative” mentoring has been defined as having (a) “clear criteria for mentor assignment,” (b) “preparation of mentors focused on helping novices enhance student achievement through development of effective instructional practices,” and (c) “joint inquiry with mentors and mentees including observation and feedback” (Stanulis & Floden, 2009, p. 213). For the purpose

of this study, *intensive mentoring* was defined as a program that includes mentor training, continued professional development in the mentor–mentee relationship, mentor classroom observations of the mentee’s instructional practices, feedback sessions after each observation, and the added component of support for both the mentor and mentee in the enhancement of reflective practices.

This researcher chose to focus on Danielson’s domains in order to utilize an observation instrument based on identifiable teaching practices and a common language to guide reflection (MacGregor, 2007). Domain 3, Instruction, was specifically chosen because the components of this domain are directly observable during a classroom lesson. The research methods applied in this qualitative study were observations, interviews, and the collection of documents and artifacts. Four new teachers and their assigned mentors from a Pennsylvania suburban school district agreed to participate in the study.

Although multiple researchers have focused their studies on the relationship between mentoring and new teachers’ instructional practices, these researchers have not examined reflective dialogue among mentors and mentees. *Reflective practice* is defined as moving through the process of experience, analyzing the experience, identifying and describing the problem or question, creating solutions for the problem or question, and investigating through intelligent action in a collaborative manner (Dewey, 1916, 1933). This researcher examined mentors and mentees engaging in professional dialogue and critical reflection to determine the impact on these new teachers’ instructional practices.

What are effective reflective practices, and why are they crucial to developing valuable instructional skills? In the field of educational theory, the American philosopher John Dewey has been viewed by educational researchers as providing the clearest

explanation of the definition of reflective practices and how they affect teaching (Rodgers, 2002). In order to grasp the complexities and rigor of the art of reflective practices, this researcher defined the process in this study utilizing the work of Dewey (1933), as well as Rogers (2002), Schön (1987) and Brookfield (1995), all of who based their approach on Dewey's theory.

Rodgers (2002) defined Dewey's (1933) criteria for reflective thought as the following four components:

1. Reflection is a "meaning-making process that moves a learner from one experience into the next with a deeper understanding of its relationships with and connection to other experiences and ideas" (Rodgers, 2002, p. 845).
2. Reflection is a "systematic, rigorous, disciplined way of thinking, with its roots in scientific inquiry" (Rodgers, 2002, p. 845).
3. Reflection needs to happen in a community with interaction with others.
4. Reflection "requires attitudes that value the personal and intellectual growth of oneself and of others" (Rodgers, 2002, p. 845).

Dewey (1933) stressed the importance of interaction between and among peers in order to enhance individual experiences. Rodgers (2002) stated, "Through interaction with the world we both change it and are changed by it" (p. 846). The purpose of reflection is to understand the relationships and links amid the experiences of self and others. Dewey (1933) defined education as "that reconstruction or reorganization of experiences which adds to the meaning of experience, and which increases [one's] ability to direct the course of subsequent experiences" (p. 41).

The stages of a reflective thinker as defined by Dewey (1933) are, in large part, based on the scientific method of inquiry. Dewey (1916, 1933) viewed the act of reflection as beginning with a human being interacting with his or her environment (i.e., a specific experience), followed by analyzing some problematic aspect of the experience, identifying and describing the problem or question that arises, creating solutions for these problems or questions, and finally investigating the efficacy of the solution through intelligent action. Dewey (1933) stressed the importance of collaboration with reflection, the significance of discussing one's thinking with another, as opposed to thinking in isolation. Dewey (1916) stated,

To formulate [an experience] requires getting outside of it, seeing it as another would see it, considering what points of contact it has with the life of another so that it may be got into such form that he can appreciate the meaning. . . . One has to assimilate, imaginatively, something of another's experience in order to tell him intelligently of one's own experience. (p. 6)

In Dewey's (1916) view, educators engaging in reflective practices profit from collaboration in a supportive community. Rodgers (2002) commented, "No teacher outgrows the need for others' perspectives, experiences and support—not if they are interested in being what Dewey calls life-long students of teaching" (p. 857). In order for educators to adopt a reflective stance on their teaching, they need to possess and identify their own personal beliefs and attitudes.

Consistent with Dewey's understanding of reflective practices, Schön (1987) discussed reciprocal reflection-in-action between a coach and a student at the postsecondary level. Schön (1987) argued that there are three key components of

appropriate reflective dialogue: “It takes place in the context of the action, it makes use of actions as well as words; and it depends on reciprocal reflection-in-action” (p. 101).

“Reflection is developed when teachers work in a collaborative and supportive community” (Pedro, 2006, p. 130).

Charlotte Danielson’s Framework for Teaching incorporates reflecting on teaching in her fourth domain, Professional Responsibilities. She defines this type of reflection as the following:

Reflecting on teaching encompasses the teacher’s thinking that follows any instructional event—an analysis of the many decisions made both in planning and implementation of a lesson. By considering these elements in light of the impact they had on student learning, teachers can determine where to focus their efforts in making revisions and what aspects of the instruction they will continue in future lessons. Teachers may reflect on their practice through collegial conversations, journal writing, examining student work, informal observations and conversations with students, or simply thinking about their teaching.

Reflecting with accuracy, specificity, and ability to use what has been learned in future teaching is a learned skill; mentors, coaches, and supervisors can help teachers acquire and develop the skill of reflecting on teaching through supportive and deep questioning. Over time, this way of thinking and analyzing instruction through the lens of student learning becomes a habit of mind, leading to improvement in teaching and learning. (Danielson, 2011, p. 72)

Danielson’s work strongly suggests the need for intensive mentoring of new teachers.

Her inclusion of *reflecting on teaching* as a component of instruction, and her emphasis

on the use of “supportive and deep questioning” to guide teachers, affirms the use of reflective practices in new teacher induction programs (Danielson, 2011, p. 72).

Reflective dialogue differs from individual reflection as it involves the interaction between and among individuals to talk about their teaching experiences. Collaboration is significant. “It is talk shared with others by giving access to one’s thoughts . . . reflection with others who ask questions of one another, thereby helping each other gain new insights about situations, beliefs and values” (Rarieya, 2005, p. 314).

Reflective dialogue between a mentor and a new teacher may help improve the instructional practices of the new teacher. This chapter draws conclusions from the collected qualitative data to support this supposition.

## **Conclusion**

*“The conversation with someone else spurs the thinking and the ideas.”*

*—Mentor C, Ms. Carver*

An analysis of the patterns and themes gleaned from the data of this qualitative study shows that participants made positive changes in specific instructional competencies described in Domain 3 of Danielson’s (2011) Framework for Teaching. In each dyad, the teacher participants attributed these specific changes to their dialogic reflection with their partners. Interview data from both the new teachers and their mentors indicated a connection between the opportunities for reflection and the new teachers’ change in instructional practice. It also should be noted that one teacher continued to struggle in some of these proficiencies. This lack of growth was attributed to this dyad’s proximity and a limited time for reflective meetings. This chapter will include conclusions drawn from the multiple data sources with regard to the relationship between

the new teacher participants' changes in their instructional practices and the dialogic reflection between themselves and their mentor.

**Instructional practices.** The changes this researcher noted in new teachers' instructional practices across the study were in the areas of communicating the purpose of and directions for the activity, using high-cognitive questioning and discussion techniques, engaging students in learning through activities and assignments, using varied formative assessments, and responding to students' understanding or lack thereof during the lesson.

**Communicating with students.** In analyzing the way in which the new teacher participants communicated with their students, patterns of behavior were identified and linked to how goals and objectives for learning were communicated and the type of explanation of the actual concepts and strategies. Indicators of proficiency in this category included clarity of lesson purpose and clear directions and procedures specific to the lesson activities (Danielson, 2013, p. 59). Teachers who embody the effective characteristics of these competencies were proficient at expressing the "why" behind a focused activity while simultaneously providing a clear and concise presentation of the content to all students.

The new teacher participants exhibited varied levels of effective communication of their learning goals and objectives both at the beginning and end of the study. Prominent in these findings were observed behaviors of establishing goals at the beginning of their lessons whether orally, written, or both. From the onset, the new teacher participants wrote the goals for the lesson and/or the lesson agenda on their blackboard or Smart Board presentation. However, in most cases, the information written



on the board was not discussed once the lesson began. By the end of the study, three of the new teacher participants began to reference the lesson's goals during their teaching by clarifying the purpose of the lesson while building connections to the task. These new teachers improved in their ability to articulate the lesson purpose and direct the students in an assignment by scaffolding the directions with visuals, such as PowerPoint slides with pictures or diagrams and/or modeling. They also moved toward student-centered construction of learning goals and lesson purpose through inquiry-based learning. These three new teachers attributed their ability to communicate more effectively to their mentor/mentee dialogic reflection sessions. One new teacher participant continued to struggle marginally in this competency as evidenced in interview responses and observations. Both this mentee and mentor acknowledged that their inability to meet on a regular basis was the cause of this lack of growth.

**Questioning and discussion techniques.** To determine proficiency in this category, observers looked for teachers to ask questions of high-cognitive challenge and questions with multiple correct answers or multiple approaches, even when there was a single correct answer. Observers also watched for the effective use of student responses and ideas and discussion, with the teacher stepping out of the central mediating role, and focus on the reasoning exhibited by students in give-and-take with both the teacher and their classmates (Danielson, 2013, p. 65).

Several themes emerged in the data collected regarding questioning and discussion techniques. Teachers who embody the effective characteristics of these competencies were proficient at “posing questions designed to promote student thinking, understanding and discourse” (Danielson, 2013, p. 67). Most notable was the quality of

the questions asked of students during lessons. A greater rate of student-driven discussion was observed as a result of teacher-posed high-level-thinking questions. Student participation also increased when the new teachers removed themselves from the center of the conversation and facilitated student and peer analysis of the content.

Initially, the mentees often made decisions about the type of questions they utilized based on their students' academic levels, language proficiency levels, and the district's content curricula. Two new teacher participants teaching an inquiry-driven curriculum learned to utilize higher levels of questioning at a faster rate than the other two new teacher participants. This type of curricula drove the new teacher participants' use of questioning and discussion techniques. The written curriculum that demands a constructivist approach was believed to dictate the type of questions asked and the level of student discussion. The gifted and science curricula prescribe inquiry-based activities, student-centered learning and teacher-posed questions of high cognitive level. Therefore, teachers who use these curricula are strongly encouraged to use appropriate questioning and discussion techniques. In addition, the mentees demonstrated growth in the ability to pose more effective questions and elicit discussions among their students after dialogic reflection with their mentors.

Two of the new teacher participants believed that students who struggled academically would have a difficult time responding to questions other than recall. These new teachers taught sections with a wide variety of student academic levels. In the beginning of the study, these teachers posed primarily recall questions or low-cognitive challenge questions for their students. The ESL teacher also believed recall questions were appropriate for her English language learners due to their lack of language

proficiency. When asked about their questioning strategies during their first interviews, these new teacher participants noted that their students struggled with comprehension skills such as drawing inferences, making connections between concepts and text, and identifying key details. These mentees attributed this deficiency in the area of higher-level thinking skills to an absence of background knowledge and reading fluency for the general education students and language acquisition as well as background knowledge for the English language learners. Hence, they concluded that complex questions would be difficult for their students. However, each new teacher participant acknowledged the ability of their students to develop these skills, and each sought to acquire the instructional strategies to support their students in this area. These new teacher participants spent a considerable portion of this study attempting to shift their students to high-cognitive levels of discussion with scaffolding techniques, teacher-centered activities, and the creation of experiences to enhance background knowledge. As the study advanced, these mentees began to embrace the mindset that struggling students could indeed answer higher-level questions with support. Through mentor/mentee meetings and discussions, these individual mentees discovered strategies from their mentor to promote a deeper level of questioning and discussion.

Consequently, all four new teacher participants' use of effective questioning and discussion strategies was strongly affected by their beliefs in how students learn, by their curriculum, and by conversations with their mentors.

**Engaging students in learning.** Engaging students in learning is the function of effective instruction. New teachers who embody the effective characteristics of these competencies were proficient in choosing learning tasks that “are fully aligned with the

instructional outcome and are designed to challenge student thinking, inviting students to make their thinking visible” (Danielson, 2013, p. 73).

Frequently, the curriculum drove student engagement, including the type of activity and the materials and resources chosen. For example, the eighth-grade science curriculum and the elementary gifted curriculum were developed as an inquiry-based methodology. Students were guided through the inquiry process as they sought knowledge and understanding of the content. In these two areas, the new teachers were provided with opportunities to utilize activities that engaged all of their students. Though many activities were defined within the curriculum documents, both the science and gifted new teachers noted the value of reflective dialogue between themselves and their mentors in order to enhance the success of these activities.

While the elementary ESL teacher and the first-grade teacher did not view their curricula as “inquiry based,” students in the first-grade class became more intellectually engaged in the lesson as indicated in the final observations of this researcher and the mentor. The level of engagement in these two new teachers’ classrooms differed. Through appropriate student grouping and selection of differentiated materials and resources, the first-grade teacher participant did indeed find activities to engage all of her students by the end of the study. After conversations with her mentor, the first-grade new teacher began to use hands-on activities with regard to drawing students into the lesson and teaching to their learning styles. When this new teacher participant was asked about student engagement, she identified her use of manipulative and concrete models, such as word rings and graphic organizers to establish this engagement. On the other hand, the ESL new teacher continued to struggle with this competency and attributed her own lack

of growth to the proximity of her mentor and the limited time to meet face-to-face. It should be noted that this was the new teacher's first experience teaching English language learners and also her first experience as a classroom teacher; hence, she struggled in multiple areas.

By the end of the study, three new teacher participants encouraged more student engagement by utilizing instructional strategies they had not used during their first observed lessons. After their dialogic reflection sessions with their mentors, learning tasks utilized by the new teachers were developed to promote a higher level of student involvement. These new teachers improved in their ability to cognitively engage their students with regard to their use of inquiry-based and student-centered activities and assignments. Furthermore, in addition to high-quality learning tasks, these new teacher participants began to utilize flexible grouping and appropriate instructional material and resources that promoted student thinking and reflection.

**Using assessments in instruction.** Competent teachers assess the learning of their students throughout a lesson. They continually monitor their students' learning and understanding of the content and provide quality feedback to students. They also encourage students to self-assess and monitor their own progress. Observers should see that the teacher pays close attention to evidence of student understanding and poses specifically created questions to elicit evidence of that understanding. The teacher should circulate to monitor student learning and to offer feedback. Observers should see evidence of students assessing their own work (Danielson, 2013, p. 77).

Throughout the study period, this researcher identified varied formative assessments utilized by new teachers to obtain the scope of student understanding during

their lessons. Although all four new teachers used formative assessment during their first observed lesson, these new teacher participants primarily used observation to ascertain student learning. As the study progressed, the new teacher's use of purposely designed questions, the teacher circulating throughout the classroom observing students' performance, and the teacher identifying learning through student feedback increased. By the end of the study, the new teacher participants wove additional modes of assessing student learning into their lessons, such as questioning and teacher feedback, hand signal responses, and think-pair-share. All new teacher participants attributed growth in this area to the dialogic reflective meetings with their mentors.

**Demonstrating flexibility and responsiveness.** Danielson's (2011, 2013)

Framework for Teaching includes a component where teachers demonstrate flexibility and responsiveness within their teaching strategies. This component is strongly related to the effective use of formative assessments. In other words, during instruction, if formative assessments show that students are confused or struggling, it may be necessary to modify or change the instruction or activity. Similarly, a strong teacher may decide to follow the interests or questions of the students and veer slightly from the planned lesson to accommodate this student interest. The ability to make these changes within the instructional period is a sign of a skillful teacher.

New teachers who embodied the effective characteristics of these competencies were proficient in confidently accommodating students' questions and interests as well as "seeking approaches for students who have difficulty learning" by making modifications to the lesson (Danielson, 2013, p. 83). As noted previously, the new teachers employed formative assessments to check for student understanding. These participants often noted

the need to modify the lesson due to their students' lack of understanding or to follow student interests during a lesson. However, their consideration for modification during the lesson did not occur initially. The new teacher participants wrote notes during the lesson and then discussed the need to alter their lessons after the lesson implementation and/or during their reflective dialogue with their mentor. Toward the end of the study period, the new teacher participants began to modify their lessons during instruction as a result of student responses or behaviors. All four new teacher participants began to alter lessons midstream, slow down, or move quickly through a particular portion of a lesson in response to their students' behaviors. The study participants attributed the new teachers' growth in this competency to the discourse with their partners.

### **Reflective Dialogue and Positive Outcomes**

Positive outcomes of reflective dialogue between the mentor and mentee included: (a) the effective use of the observation tool to enhance dialogic reflective conversation, (b) the improvement in instructional practices after formal and informal mentor/mentee meetings, (c) an increase in reciprocal teaching and learning between mentor and mentee, and (d) the building of trust between the mentor and mentee. The study also revealed the importance of physical proximity in enabling this collaborative reflection.

All mentors commented positively on their use of the Collaboration and Observation Reflection sheet and the focus on Danielson's (2011, 2013) Domain 3. This focused feedback facilitated by the observation tool allowed for a nonthreatening and deeper discussion between the mentor and their mentee. The mentors particularly approved of the question sentence starters, "What do I notice?" and "What do I wonder?"

*Because that was a nice way, if I would want to give her some feedback but not have her feel defensive about it. I would say things like, "So what do you think your goal was for this" or "I'm just curious . . . are you tying in with what the regular education teacher is doing?" "I am just curious, are you looking at the common core?" or "I am just curious, where are you going to get your resources from . . . are you going to the National Council of Teachers of Mathematics website?" So that was my main way . . . I was just asking her questions like that.*

(Mentor A, Ms. Dempsey, Interview 2)

The mentors believed delving into Danielson (2011, 2013) at deeper levels and concentrating on specific competencies allowed for conversations that proved fruitful for both the mentor and the mentee. Mentor D, Ms. Dempsey, commented during her final interview, *"It really made me think about my instructional practices more with my students and modifying the things that are going on in their regular education classrooms . . . talking to my mentee about techniques and strategies for ELL students with a focus on engaging all students was very helpful to her as well."* Dunne and Villani (2007) state, "This framework for teaching is a powerful tool for keeping the focus of mentoring and induction on practice-based, content-specific reflection and self-assessment" (p. 46). When the mentor and mentee share an understanding of what effective teaching looks like, they will have the ability to integrate reflective dialogue into their conversations. "Through such talk and reflection, the mentoring pair will be able to move from knowing about their practice to being more explicit and conscious about what they are doing, why, and how it related to goals for student learning" (Dunne & Villani, 2007, p. 47).



As noted in the data analysis of this study, each mentor noted some change in the instructional decisions and strategies of the mentee over the course of the study. Evidence supports growth for three out of the four new teachers in the five competencies of Domain 3. However, one mentor noted that her mentee would require more support in communicating the purpose of a lesson as well as engaging her students in learning through appropriate activities and assignments. It must be noted that this dyad taught at different elementary schools and both teachers had a difficult time arranging informal face-to-face meetings. Though they attempted to discuss issues via email and text, they both had desired closer physical proximity and/or release time to meet more frequently.

All four mentors attributed many of the instructional shifts to their discussions beyond their observation reflection and feedback meetings. The two dyads that were able to meet frequently due to the same building location, identical preparation times, and matching curriculum believed their mentees improved over the course of the study. Another dyad did not share building assignment; nevertheless, these partners were able to meet more frequently after the school day. All new teacher participants believed the time for collegial conversation while sharing ideas about the similar curricula activities was a factor in their individual growth. Lastly, the mentors also reflected on their learning through this process and alleged that they, too, learned from their conversations with their mentees. In many respect, reciprocal learning occurred through their reflective conversations.

Consistently, mentors and their mentees expressed that their effective dialogic reflection enabled a building of trust. Throughout their use of collaborative mentoring strategies, the mentors were able to establish a positive relationship with their mentees

while promoting two-way and reflective practices. Mentor D, Ms. Dempsey noted that one of the successes of the experience was

*Giving a novice teacher not just the supports but also an outlet for when they are frustrated or not sure where to go. They know that they have that mentor that they have built a trusting relationship with, hopefully, in an ideal world, that they can reach out and say “I’m not really sure what to do with this situation.” (Dyad Interview 2)*

In addition, the mentees identified the importance of trust in this relationship. Mentee A, Ms. Adams, commented during the dyad interview that *“I just really trusted her through the process because there were so many times where I was uncertain or unclear, and she gave me a totally different perspective. It was really great.”* This theme of trust was interlaced throughout all interview data.

### **Possible Barriers to Reflective Dialogue**

During this study, there were several obstacles that limited reflective dialogue and instructional change. The location of the teachers’ assignments and the time allotted for formal and informal meetings were strong factors in the outcomes. Teachers with less time and more difficulty arranging meetings were less successful. Other barriers involved the teacher’s perception of student abilities, teacher content knowledge, and the personality or disposition of the teachers.

**Proximity and time.** One dyad believed time restrictions and the inability to meet frequently with their partners hindered their reflective practices. Hence, this new teacher yielded minimal growth in three of the competencies and no growth in the other two. Both mentor and mentee in this dyad recognized some growth in reflective practices

utilized by Ms. Dalton. However, they identified the need for more time to develop these skills. Ms. Dempsey commented that this was a “work in progress” and recommended continued mentor support for Ms. Dalton.

The limitations of this mentor/mentee relationship involved their lack of time to devote to dialogic conversation due to their different building assignments and inability to identify appropriate meeting times. “Unambiguous criteria for the selection and matching of mentors with new teachers should most certainly include physical proximity” (Dune & Villani, 2007, p. 21).

**Teachers’ content knowledge.** In two of the dyads, there were concerns with regard to the mentees’ knowledge of their content. The mentors in both cases believed that this lack of knowledge would hinder growth in most areas of instruction as defined by Danielson’s (2011, 2013) Domain 3. In one dyad, the science teacher developed a stronger understanding of the science curriculum after multiple meetings with her mentor. This dyad recognized significant growth in the mentee’s use of effective instructional practices.

However, in another dyad, a new teacher struggled in her first experience teaching English language learners and as a classroom teacher. Primarily, this mentee needed to become familiar with the core curricula for grades 1 through 4, in all content areas. This would have presented enough of a challenge. However, she also had to adapt each curriculum for her specific group of students in all four grade levels. Gaining knowledge of the content became a critical and immediate need. Additionally, she needed to understand the appropriate and effective teaching practices for English language learners.

**Teacher perception of student abilities.** Three of the new teacher participants initially believed that struggling learners and/or English language learners would have a difficult time responding to high-cognitive questions as well as participate in student-centered inquiry-based activities. In the initial stages of the study, these new teacher participants tended to pose recall questions and selected simple learning tasks. As the study advanced, these mentees began to embrace the mindset that struggling students could indeed answer higher-level questions with appropriate support. Through mentor/mentee meetings and discussions, these individual mentees discovered strategies from their mentors to help promote a deeper level of questioning and discussion.

On the other hand, the new teacher of the gifted students began the study with the belief that her gifted students were capable of responding to higher-level questions involving comprehension skills such as drawing conclusions, making connections between past experiences and among texts, identifying cause and effect, and formulating hypotheses. The concern for this mentee was how to expand her use of cognitively challenging questions and activities. Her belief in how her students learn was not a barrier in her growth in effective instructional practices.

**Disposition of teachers.** Experienced teachers who take on the role of a mentor require mindsets that value the personal and intellectual growth of oneself and of others. In addition, the new teacher must be receptive to the development of this relationship. It is imperative that both the mentor and the mentee embrace a stance for dialogue, which includes “a curiosity and interest in other people, a willingness to explore the similarities and differences that both set individuals apart and tie them together” (Howard, 2007).

Dewey (as cited in Rodgers, 2002) also claimed that an individual must have four attitudes to embrace learning through reflection: (a) whole-heartedness, (b) directness, (c) open-mindedness, and (d) responsibility. Engaging in professional dialogue with colleagues will enhance professional and personal growth. “This teacher-to-teacher dialogue provides a means by which to absorb and process the teaching attitudes, beliefs and practices between peers, and an opportunity to compare, learn, and grow from the exchange” (Howard, 2007). The teacher participants in this study welcomed the opportunity to engage in reflective dialogue with their partners. They demonstrated positive behaviors of empathy, view of self and others, authenticity, and purpose and vision. In this study, the teachers’ dispositions were not a barrier to reflective dialogue or growth in new teachers’ instructional practices.

After careful review of the positive outcomes of and the barriers to effective mentoring, this researcher believes that effective mentoring should be established with the following considerations in mind:

- Assign partners with close proximity and same or similar content areas of study;
- Grant mentors and mentee release time to increase opportunities for observations and reflective meetings;
- Identify and recognize teachers’ with dispositions for embracing collegial and collaborative reflection; and
- Deliver ongoing and embedded training for mentors and mentees in dialogic reflection and effective instructional strategies.

### **Limitations of the Study**

While this study yielded constructive information in the area of mentoring new

teachers in instructional practice in this suburban Pennsylvania school district, there are several limitations to this work. The problems in validity that affected this study are: sample size, gender of participants, and the subjective nature of a qualitative study.

First, the new teacher participants of this study were composed of 31% of the new teacher pool for the 2014-2015 school year. In addition, the mentor participants comprised 1% of the total teaching population for the same year. The purposive sampling limited participants to classroom teachers new to this particular suburban district and/or new to teaching (Teddie & Tashakkori, 2009, pp. 173-174). Selected mentors had to meet district criteria. Since only eight teachers (4 new teachers and 4 mentors) met the criteria and, therefore, participated in the study, the small sample size makes it difficult to generalize these findings to the larger population of new teachers and mentors.

Secondly, it should be noted that the gender of all participants is female. The specific gender might have a predisposition toward a certain behavior and/or response to dialogic reflection.

Finally, this researcher alone planned, designed, gathered, organized, interpreted, and reported all of the information regarding this study report. Functioning as a sole researcher limits the opportunity to consider or apply a larger variety of perspectives because personal backgrounds and experiences help shape individual beliefs and opinions. Because the nature of qualitative data is inherently subjective, reliance on a single researcher limits the results of the study to the thinking and beliefs of a single individual.

## **Implications of This Study**

As individuals move from their preservice experiences to their first years of teaching, they face numerous obstacles. Teacher preparatory courses and student teaching experiences do not adequately prepare new teachers for the challenges they must face in the profession. University level preservice programs must identify this issue and support student teachers in these multiple areas of effective instructional practices, reflective learning, and teaching so all students learn. In addition to effective preservice learning, new teacher induction programs and the component of mentoring should also be utilized to ease new teachers' transition. The question has been how to sufficiently sustain new teachers and promote their capacity.

Historically, new teacher induction programs have been developed to address teacher attrition. It was viewed that teachers often left the profession due to lack of support from administration and colleagues. During the beginning development of new teacher induction programs, professionals assumed a connection between teacher retention and quality teaching. A shift in focus occurred with the advent of federal and state education policies. Educational reform policies changed the face of new teacher induction programs to an emphasis on teacher pedagogy and the impact of teacher quality on student achievement (Onchwari & Keengwe, 2010).

Researchers have endorsed the notion that assigning a mentor to a new teacher will impact positively on the new teacher's instructional practices. "Mentoring is the most critical component of the induction of new teachers in transforming the practice of teaching and is the shrewdest investment in teacher quality" (Dunne & Villani, 2007, p.

2). However, simply assigning an experienced teacher to mentor a new teacher without proper guidance and training would not guarantee positive outcomes.

A common thread through these sets of assumptions, beliefs, goals, and features of mentor programs is a focus on reflective practice. When a mentor and induction programs are grounded in content-based conversations about teaching and learning and are aligned with other professional development initiatives, such programs are most likely to positively impact teacher retention, teacher renewal, teacher quality, and, most importantly, student learning and achievement.” (Dune & Villani, 2007, p. 3)

Teachers participating in a mentor–mentee relationship will alter their thinking and behaviors. These shifts will be facilitated by the mentoring cycle of mentor–mentee collaborative planning, mentor observations, data gathering, and dialogic reflection. This collaborative model must include “the dimensions of mutual reflection on teaching practices and an explicit emphasis on intentionality for the new teachers and mentors alike . . . through ongoing collaborative dialogue, mentor and new teacher pairs engage in meta-reflection and analysis of their practice” (Dune & Villani, 2007, p. 62).

Methodical and collegial reflection can significantly deepen a new teacher’s understanding of his/her teaching and learning. According to Boreen, Johnson, Niday, and Potts, reflection: (a) “helps teachers organize their thoughts and make sense of classroom events,” (b) “leads to professional forms of inquiry and goal setting,” (c) “promotes a model of learning that views teaching as an ongoing process of knowledge building,” and (d) “promotes conversation and collaboration with mentors” (p. 56).



Recommendations for the development of an extensive mentoring program would include the training of both the mentor and mentee in reflective practices as defined above. In addition to guidance in reflective dialogue, training in observation techniques would be beneficial for both the mentor and mentee to assure for inter-rater reliability. Teachers will need to learn how to observe their peers' instructional practices in an effective and non-threatening manner to enhance reflective conversations with regard to their practices.

It would be this researcher's hope that this study allowed for a more comprehensive examination of this school district's new teacher induction programs and the impact of an intensive mentoring program on a mentee's teaching practices.

### **Areas of Future Research**

In the present investigation in the areas of new teacher induction and mentoring, there had been paucity of studies on the impact of intensive mentoring on teacher effectiveness and student achievement. Propositions for areas of future study indicate a need to explore the following questions. First, how can school districts develop comprehensive induction programs for new teachers to include intensive mentoring with collaborative reflection? Marzano (2012) states, "A teacher's pedagogical skill in the classroom is causally linked to how well and how much student learns . . . the relationship between classroom strategies and behaviors and student achievement is very straightforward" (p. 3). If, indeed, an intensive mentoring program that includes reflective dialogue enhances a new teacher's instructional practices, will these improved instructional practices of novice teachers impact their student achievement? The mentors in this study were trained in the collaborative coaching cycle to best facilitate reflective

dialogue. “Cognitive coaches engage in dialogical conversations with teachers, observe them while working, and then use powerful questions, rapport building, and communication skills to empower those they coach to reflect on their practices” (Knight, 2009, p. 18). It would be advantageous to examine the benefit of peer coaching for experienced teachers in addition to the novice teacher. Future consideration for inquiry into the contributing relationship between all teachers’ reflective practices, their pedagogical skills, and the impact of these practices on student achievement is recommended.

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## *Appendix A*

### **Mentee Interview Protocol**

Interviewee:

Interviewer:

Date:

Location:

#### **Research Question**

The overarching question of this study is the following: In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson's (2011) Framework for Teaching? Specifically, how might collaborative reflection between mentors and their mentees influence new teachers' ability to communicate with their students, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and exhibit flexibility and responsiveness?

#### **Introduction**

To facilitate my note taking, I would like to audio tape our conversations today. For your information, only I will be privy to the tapes, which will be destroyed after I transcribe them. Please note that (a) all information will be held confidential, (b) your participation is voluntary and you may stop the interview at any time if you feel uncomfortable, and (c) you may withdraw from this study at any time for any reason without negatively affecting your relationship with school district personnel, work-related evaluations, your mentor, Arcadia University, or me.

Thank you for agreeing to participate.

I have planned this interview to last approximately 1 hour. During this time, I have several questions that I would like to cover. My study does not aim to evaluate your techniques or experiences. Rather, I am trying to learn more about how mentors impact on a teacher's instructional practices.

#### **Reflective Practices**

1. How do you reflect on your teaching practices?
2. During your feedback session after your observation, what reflective strategies did you employ with your mentor?
3. How did your mentor coach you in the process of reflection on instruction?
4. Do you believe your mentor was able to help you to reflect at a deeper level after your discussion of your lesson? Give an example.

#### **Classroom Instruction**

5. Do you believe you convey your learning expectations to the students? How?

(Communicating with students)

6. Which activities and assignments challenged the students to think broadly and deeply, solve problems, and/or be involved in nonroutine thinking? (Engaging students in learning)

learning)

7. Looking at the strategies that you use as you question and bring students into a discussion, which were the most successful, and which would you change?

(Questioning and discussion techniques)

8. How do you monitor the progress of the individual students in the class, and how does that information allow you to meet the needs of the individual students? What evidence do you have that your students are learning? (Using assessments in instruction)

9. Did you adjust your instruction in response to evidence of student understanding (or lack of it)? Why or why not? (Flexibility and responsiveness)

## *Appendix B*

### **Mentor Interview Protocol**

Interviewee:

Interviewer:

Date:

Location:

#### **Research Question**

The overarching question of this study is the following: In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson's (2011) Framework for Teaching? Specifically, how might collaborative reflection between mentors and their mentees influence new teachers' ability to communicate with their students, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and exhibit flexibility and responsiveness?

#### **Introduction**

To facilitate my note taking, I would like to audio tape our conversations today. For your information, only I will be privy to the tapes, which will be destroyed after I transcribe them. Please note that (a) all information will be held confidential, (b) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (c) you may withdraw from this study at any time for any reason without negatively affecting your relationship with school district personnel, work-related evaluations, your mentee, Arcadia University, or me.

Thank you for agreeing to participate.

I have planned this interview to last approximately 1 hour. During this time, I have several questions that I would like to cover. My study does not aim to evaluate your techniques or experiences. Rather, I am trying to learn more about how mentors impact on a teacher's instructional practices.

#### **Reflective Practices**

1. During your feedback session after your observation, what reflective strategies did you employ with your mentee?
2. How did you coach your mentee in the process of reflection on instruction?
3. Do you believe your mentee was able to reflect at a deeper level after your discussion of his or her lesson? What evidence from the lesson observation supports your answer?
4. Have you become more reflective in your practice? If so, how?



5. What were the outcomes of your mentoring process? Please discuss the successes and struggles.

**Instruction**

6. Do you believe your mentee conveyed his or her learning expectations to the students?  
How? (Communicating with students)
7. Which activities and assignments challenged the students to think broadly and deeply solve problems, and/or be involved in non-routine thinking? (Engaging students in learning)
8. Looking at the strategies that your mentee used as he or she questioned and brought students into a discussion, which were the most successful, and which would you suggest he or she change? (Questioning and discussion techniques)
9. Did your mentee monitor the progress of the individual students in the class, and how did that information allow him or her to meet the needs of the individual students? (Using assessments in instruction)
10. Did your mentee adjust his or her instruction in response to evidence of student understanding (or lack of it)? Why or why not? (Flexibility and responsiveness)

### *Appendix C*

#### **Dyad Interview Protocol**

Interviewees:

Interviewer:

Date:

Location:

#### **Research Question**

The overarching question of this study is the following: In what ways do collaborative reflection between mentors and their mentees influence new teachers' instruction in the classroom with respect to Domain 3, Instruction, of the Danielson's (2011) Framework for Teaching? Specifically, how might collaborative reflection between mentors and their mentees influence new teachers' ability to communicate with their students, utilize questioning and discussion techniques, engage their students in learning, use assessments in their instruction, and exhibit flexibility and responsiveness?

#### **Introduction**

To facilitate my note taking, I would like to audio tape our conversations today. For your information, only I will be privy to the tapes, which will be destroyed after I transcribe them. Please note that (a) all information will be held confidential, (b) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (c) and you may withdraw from this study at any time for any reason without negatively affecting your relationship with school district personnel, work-related evaluations, Arcadia University, or me.

I have planned this interview to last approximately 1 hour. During this time, I have several questions that I would like to cover. My study does not aim to evaluate your techniques or experiences. Rather, I am trying to learn more about how mentors impact on a teacher's instructional practices.

1. As you reflect on your experiences during this year, what would you categorize as successes in engaging in collaborative reflective? What do you view as barriers to the process of collaborative reflection?
2. Tell me how you both reflected on your teaching process. What levels of reflection did you use when you met after a lesson?
3. Was the use of the Collaborative Observation Recording and Reflection sheet helpful in guiding your conversations? If so, how? If not, why do you believe it was not helpful?

4. When reflecting on your instructional practices did you decide to make adjustments to your teaching in regard to Danielson's Domain 3? Can you give some examples from your lessons?
5. Please share your final thoughts about this experience.

*Appendix D***Code Book****Category: Background Information****Category: Demographics****Category: Trust/Relationship Between Mentor and Mentee****Category: Reflection**

Subtheme: Success of Dialogic Reflection

Subtheme: Barriers to Dialogic Reflection

Subtheme: Mentee Learning from Mentor

Subtheme: Levels of Reflection

Subtheme: Mentor Reflective Practices

Subtheme: Mentee Reflective Practices

Subtheme: Reflective Feedback and Collaboration Sheet

**Category: Communicating With Students**

Subtheme: Directions and Procedures

Subtheme: Clarifying Lesson Purpose

Subtheme: Explanations of Content

**Category: Questioning and Discussion Techniques**

Subtheme: Discussion Techniques

Subtheme: Quality of Questions/Prompts

Subtheme: Student Participation

**Category: Category: Engaging Students in Learning**

Subtheme: Activities and Assignments

Subtheme: Instructional Materials and Resources

**Category: Using Assessment in Instruction**

Subtheme: Feedback to Students

Subtheme: Monitoring of Student Learning

Subtheme: Student Self-Assessment and Monitoring of Progress

**Category: Demonstrating Flexibility and Responsiveness**

Subtheme: Lesson Adjustment

Subtheme: Response to Students

## Appendix E

<b>Collaborative Observation Recording and Reflection Sheet</b>			
<b>Observer:</b>		<b>Teacher:</b>	
<b>Grade/Subject:</b>			
<b>Date of Observation:</b>		<b>Date of Reflection Meeting:</b>	
<b>Communicating With Students</b>	<b>What do I notice?</b>	<b>What do I wonder?</b>	<b>Reflection Discussion</b>
Explanation of content			
Expectations for learning			
Directions and procedures			
Use of oral and written language			
<b>Questions and Discussion Techniques</b>	<b>What do I notice?</b>	<b>What do I wonder?</b>	<b>Reflection Discussion</b>
Quality of questions/prompts			
Discussion techniques			
Student participation			
<b>Engaging students in learning</b>	<b>What do I notice?</b>	<b>What do I wonder?</b>	<b>Reflection Discussion</b>
Activities and assignments			

Grouping of students			
Instructional materials and resources			
Structure and pacing			
<b>Using Assessment in Instruction</b>	<b>What do I notice?</b>	<b>What do I wonder?</b>	<b>Reflection Discussion</b>
Assessment criteria			
Monitoring of student learning			
Feedback to students			
Student self-assessment and monitoring of progress			
<b>Flexibility and Responsiveness</b>	<b>What do I notice?</b>	<b>What do I wonder?</b>	<b>Reflection Discussion</b>
Lesson adjustment			
Response to students			
Persistence			

