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PORTRAITS OF NOVICE TEACHER LEARNING WITH MENTORS IN URBAN SCHOOLS

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PORTRAITS OF NOVICE TEACHER LEARNING WITH
MENTORS IN URBAN SCHOOLS

BY

MARJORIE KAZIN-BOYCE

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
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ABSTRACT

The purpose of this retrospective study was to examine the learning and development process of three new teachers who were paired with mentors in a formal induction program in an urban district. The qualitative case study focused on three teacher-mentor dyads who were interviewed about their experience during the teachers' first year of teaching in middle and high school of the district. In addition to interviews with teachers and their mentors, the researcher examined documents that were part of the mentoring process such as teacher reflective journals or mentor feedback forms. Using the Purposeful, Ongoing Mentoring Model (Peno & Silva Mangiante, 2012), teachers were asked to identify their beginning skill level, their level after one year with a Mentor, as well as their level during their second year of teaching without the help of a mentor. The process that led to their development was explored with the teachers and the Mentors.

The results were centered around themes that emerged across cases as well as in vignettes of teacher-mentor practice as the dyads navigated problems or issues that arose in classroom management and instructional practice. Specifically, the results explored supports and challenges that the new teachers experienced during the mentoring process. Teachers reported that they felt their levels on the POMM were different depending on their comfort level with the skill.

The results of the study indicate that mentoring new teachers is important to their skill development as established by the teachers and mentors report of development on the Novice to Expert skill model. The findings will be relevant to teacher educators,

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teachers, mentors, and school administrators as they struggle with the changing educational landscape and ways to most effectively prepare teachers.

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PREFACE

The Manuscript format is utilized to present this retrospective case study of mentoring teachers through their first year of practice. This study presents a glimpse into challenges and supports that new teachers face in learning to teach. Study participants include three dyads composed of three new teachers and their assigned mentors, all who worked in the same urban district in the Northeast. The purpose of the study was to discern how goal-oriented, sustained mentor actions assist and promote new teacher growth in skill development during their first year of learning to teach. The Purposeful, On-Going Mentoring Model (POMM, Peno & Silva Mangiante, 2012), serves as a tool to analyze perceptions of new teacher skill development. Through semi-structured interviews and document analysis, the stories of how new teachers and their mentors, collaborating in professional skill development, work toward higher levels of teaching skill. The case and cross-case analyses reveals a pattern of growth in new teacher skill with the sustained support of mentors. The study provides a window into the confidential relationship of mentors and new teachers constructing meaning from practice to improve professional skill. The study results confirm the importance of sustained mentor support to scaffold assistance that promotes growth in new teacher skill.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

Studies estimate that 40-50% of novice teachers leave the profession within five years (Ingersoll 2010; Smith & Ingersoll, 2004). Nationally, retention of new teachers in urban secondary schools and the hard-to fill assignments of math, science, and special education, present an even more challenging dilemma, with an attrition rate as high as 70% within the first three years of practice (Johnson, 2004; Murnane, Singer, Willett, Kemple, & Olsen, 1991). Ongoing teacher turnover is costly and disabling to student achievement and development of schools as communities of student learning (Johnson, 2004).

Justification for and Significance of the Study

A leading cause of teacher job dissatisfaction is the sense of isolation that permeates school; wherein teachers express the need for professional interaction and support to hone skill and knowledge (Johnson, 2004; Little, 1990; Smith & Ingersoll, 2004). Ironically, although elementary and secondary teaching involves intense interaction with students, it is largely done in isolation from colleagues and within the confines of solo classrooms (Johnson, 1990, 2004; Smith & Ingersoll, 2004). Collaboration and collegial sharing minimize new teacher feelings of isolation, increase teacher perception of belonging to a school community, and help teachers

develop strategies to deal with adversity (Cochran-Smith, 2008; Little, 1980, 1990; Peno & Silva Mangiante, 2013). The greatest attrition is witnessed in schools serving poor, minority communities, where social issues of an urban environment complicate demands on a Novice teacher (Cochran-Smith, 2008; Moir, 1997). With high teacher attrition, the experience base of a school becomes very narrow, and a collective culture of traditions and knowledge of successful pedagogy is limited (Ingersoll, 2001). Teachers' leaving impacts morale, climate, and school culture, as faculty and students have fewer and fewer shared norms; school communities lose the momentum of reform initiatives when teachers leave, eroding community stability (Breux & Wong, 2003; Smith & Ingersoll 2004).

Coaching teachers in effective strategies to improve student performance and address competing social demands requires customized, on-going professional development during an induction period of more than the customary first year (Cochran-Smith, 2008). A collaborative process of mentoring is designed to introduce new teachers to a school community, support them in adjustment and professional growth, and reduce their sense of isolation (Johnson, 2004; Smith & Ingersoll, 2004; Wong, 2004). Approximately 80% of new teachers report participating in mentoring activities in their first year of teaching, yet mentoring alone typically fails to foster new teachers' professional learning, particularly in high-poverty schools (Ingersoll & Kralik, 2004). New teachers enter the profession with widely varied backgrounds in pre-service preparation, content knowledge, and skill in pedagogy, so "one size" of professional learning, therefore, does "not fit all" (Johnson, 2004). State adoption of national education initiatives such as the Common Core Standards, the American

Recovery and Reinvestment Act of 2009, and Race to the Top (RTT), have exponentially increased demands on developing teacher skill. Currently, two reform initiatives are in place nationally that impact all teachers: new state teacher evaluation systems and the Common Core Standards for curriculum. Teachers are to be evaluated based not only on their professional practice, but also on their students' academic progress as measured by high-stakes standardized test scores. Such reforms intensify Novices' need for appropriate professional skill development.

Importance of Professional Learning

Activities that encourage teachers at every career stage to be reflective practitioners, decision makers, and problem solvers, focused on teacher learning, create vital opportunities for professional development (Yost, 2002). Identifying the characteristics of teacher development can serve as a lens to study the complexities of how teachers learn to meld theory with practice. Studying how teachers learn to draw upon and use their understanding of subject matter, learning, human development, culture, language, pedagogy, and assessment reveals essential insight into concrete problems of practice (Darling-Hammond, 2008).

Development of job-embedded professional learning is essential to helping employees meet challenges in the workplace. In public education, ever-changing regulations and policies create a dynamic social need to educate staff, especially Novice teachers, about new job expectations with emerging programs and revised curriculum. Professional learning becomes an essential component for all educators faced with changes in policy that impact teacher evaluation, curriculum and lesson planning, and classroom roles.

For Novice teachers entering their first professional teaching assignment, expectations are especially demanding. Researchers note a subtle form of hazing that Novice teachers face when they are assigned the most challenging classes and schedule, while having the least amount of experience to teach students exhibiting low performance skills and disruptive behavior, all the while for the least compensation among the faculty (Darling-Hammond et al, 2006; Ingersoll, 2004).

Professional Learning as a Social Process

A seminal study of mentoring is grounded in Bandura's Social Cognitive Learning theory (1986), where professional learning in the workplace is derived from the social context in which adult learners construct meaning about work from experiences and interactions within communities of practice (Brown, Collins, & Duguid, 1989; Fosnot, 2005; Lave & Wenger, 1998). Bandura (1986) posits that human beings learn in interaction with one another, developing self-efficacy through social interaction and confirmation. In his view, self-efficacy is a motivational factor in cognitive learning and is a predictor of one's "persistence in activities, changing behavior, and enduring adversity" (p. 191). The degree of a learner's self-efficacy or confidence correlates positively with their motivation and self-direction to seek new behavior. In essence, Bandura (1986) suggests that adults learn through shared experiences and participation in joint responsibilities based on collaboration with partners, work groups, and social networks. Social cognitive theory describes apprenticeships and mentoring relationships that engage participants in goal-oriented, sustained professional learning to acquire necessary performance skills and knowledge. Informally, spontaneous groups form in the workplace to promote

learning through communities of practice (CoP's) (Lave & Wenger, 1998). Mutual engagement binds members of a CoP together, with the capability to produce a shared repertoire of communal resources such as routines, artifacts, and vocabulary that members develop over time. Lave and Wenger refer to the situated nature of learning as the community's belief that its members develop and adopt professional learning in the social context of work (1991). CoP's develop informally around things that matter to people in the workplace, and develop practices that are their own, in response to shared problems or needs. Brown, Collins, and Duguid (1989) build on the construct of CoP's in describing cognitive apprenticeships based on situated cognition of learning in the workplace. Cognitive apprenticeships emphasize the importance of adult learning through social interaction and describe the professional learning of new members guided informally by a veteran mentor assisting the transformational journey.

Vygotsky (1978) describes the social nature of learning in his zone of proximal development (ZPD), where a more capable person, through the use of the scaffolding techniques of challenge and support, assists the learner to develop increasingly higher levels of skill. The ZPD represents the difference between actual skill and the higher level to which the learner aspires to achieve (Vygotsky, 1978). Using the ZPD in a mentoring model, a mentor's actions could support a Novice to develop goals for attaining a higher level of performance and provide the scaffolding to support a Novice's attainment of a goal.

The Role of Reflection in Professional Learning

Dewey (1910) and Schön (1983, 1987) suggest that adults learn from professional experiences, and move to a higher level of skill, when they can reflect on their actions in problem-solving situations in collaboration with peers. Schön (1983) defines “reflection-on-action” as a means to empower learners to look back on experiences and performance to use those opportunities to review, communicate, and learn from practice. Specific feedback from a mentor empowers the Novice to reflect on performance and change practice as a means of problem solving (Schön, 1983). Schön described teacher development as teachers engaged in a collaborative partnership, where they identify problematic teaching situations through “problem-setting and problem-solving” (1987). The dynamic of problem solving in mentoring is defined as the interactive process of mentor actions and mentee reflection-on-practice working towards established goals (Schön, 1987).

Professional Skill Development from Novice to Expert

Dreyfus and Dreyfus (1980) proposed a model of professional skill development, the Novice to Expert model of skill acquisition (the skill model), to describe professional growth from Novice to Expert. The skill model, based on their research with pilots, chess players, and English language learners, denotes five stages of skill acquisition: Novice, Advanced Beginner, Competent, Proficient, and Expert. The skill model describes movement to higher levels of performance as the result of experience and/or guidance. Benner (2004) utilized the skill model in her study of nurses’ development of clinical judgment, and Berliner (2004) used it to examine the practice of Expert teachers. Based upon his research, Berliner supports mentoring as a professional learning tool because “coaching matters in the acquisition of complex

skills such as teaching... Estimates are that mentoring and coaching programs for new teachers reduce dropouts in their first three years by 50%, particularly where the students are the hardest to teach” (2004, p. 18). Berliner also notes that mentoring and coaching markedly increase Novices’ satisfaction with the teaching profession.

Peno and Silva Mangiante (2012) advanced the skill model by adding a component to purposefully operationalize movement from Novice to Expert levels. The Purposeful Ongoing Mentoring Model (POMM) delineates mentor and mentee actions based upon scaffolding (Vygotsky, 1978), reflection on and in practice (Schön, 1983), and a goal orientation to professional growth. Mentor actions assist in scaffolding Novice teachers in exploring their practice through reflection (Peno & Silva Mangiante, 2012). The POMM can provide a framework to study teacher mentoring relationships, especially how mentoring dyads engage in constructing ideas and shared beliefs in a purposeful, goal-oriented way.

Mentoring to Enhance Professional Learning

Formal mentoring and induction programs have increased since their inception in the 1990’s, with as many as 80% of Novice teachers reporting that they had some form of mentoring support in 2008 (Ingersoll, 2010); however, perception of the effectiveness of mentoring assistance varies widely. Formal induction and mentoring efforts begin with helping new teachers become acclimated to the classroom and coping with immediate problems, but the mentoring relationship is most valued for demonstrating the greater potential for assisting Novice teachers to develop competence and sound reasoning for their actions in the classroom (Breux & Wong, 2003; Ingersoll & Smith, 2004). The promise of induction and mentoring programs

lies within mentoring interactions and collaboration in which the beginning teacher's learning is centrally focused on critical reflection for development of their teaching practice.

Communication in the mentoring relationship is vital to understanding how mentor actions encourage Novice teachers to reflect on their teaching and to learn from their practice (Fosnot, 2005). Within a Constructivist lens, the mentor facilitates the Novice teacher to construct knowledge about their practice and to develop a variety of strategies to meet their students' needs and engage their learning in the classroom. The language, symbols, mannerisms, and concepts used to describe the teaching experience construct meaning to understand how students and teachers learned from the experience (Fosnot, 2005). The mentor's feedback is formative, rather than summative or evaluative, in denoting Novice development. Receiving meaningful feedback is important to fostering teacher skill development (Berliner, 2004). Creating opportunities for reflection-on-action ensures that teacher development is continuous and relevant to practice (Berliner, 2004).

Empirical studies examining mentoring and teacher development during the first year of teaching abound (Ingersoll, 2010). A few longitudinal studies of mentoring and induction describe teacher's experiences, perceptions, and satisfaction with mentoring efforts over time (Feiman-Nemser, 2009; Fry, 2009; Ingersoll & Kralik, 2004). However, little research exists that examines the transition of Novices to Advanced Beginner skill level with mentor support through the skill model. Cognitive peer coaching methodologies have provided teachers with opportunities for discussion and collaboration to change practice (Hargreaves & Fullan, 2000; Robbins,

1998; Joyce & Showers, 1996), yet these practices are general in terms of teacher development in instructional skill and do not provide specific insight into coaching beginning teacher learning.

The researcher has chosen the POMM (Peno & Silva Mangiante, 2012) to serve as a framework to understand and describe the professional learning of three second-year teachers, after a year's teaching experience with mentor support. As a teacher, guidance counselor, and high school mentor coordinator, the researcher was drawn to study the viability of a collaborative, individualized mentoring method to enhance the induction process. One goal of this study was to address the gap in the literature by detailing mentee/mentor perceptions and reflections on how teachers transition in skill development from their first to second year of teaching as a result of their participation in formal mentoring as part of a district-sponsored induction program. The results of this study will be relevant to teachers, administrators, and teacher educators who serve as mentors to new members of school communities.

Research Questions:

The goal of this study was to understand the experience of second-year teachers working in an urban setting who are engaged in a formal mentoring program as part of their school district's induction program. The following questions guided the data collection:

Research Questions:

1. Using the P.O.M.M. as a guide, where do second-year teachers place themselves as new teachers at the beginning of their mentoring experience in their first

year, and currently, as experienced second-year teachers, by describing their point of development along the Novice to Expert skill model (Dreyfus & Dreyfus, 1980)?

2. How do second-year teachers acquire knowledge about teaching and learning in this urban, secondary school district, especially in reference to their experience in mentoring and induction?

3. How do these teachers describe their transition between these points (Novice to Expert) from their first year to now, and how does the pattern of growth compare with development described in the P.O.M.M (Peno & Silva Mangiante, 2012)?

4. How do these teachers see their mentoring experience as playing a role in their transition between the skill levels as they describe them? (How does mentor support, and specifically, mentor actions and language, influence Novice professional learning along the Novice to Expert skill model?)

5. Using the POMM as a guide, how do the mentors describe their mentees' skill, when they first began the mentoring process and currently?

6. To what do the mentors' attribute their mentees' transitions in skill over time?

Chapter Overview

Chapter two provides an extensive review of the literature that guided the development of this study. In particular, literature that examines the importance and methods of supporting the learning of Novice teachers, the learning and skill development process during teacher induction into the field, and the social nature of learning as the theoretical framework supporting this study is explored.

In Chapter three, the author outlines the research methodology used for this study and provides support for using qualitative case study. The participants are

described as well as the process of engaging them in the study. The data collection methods and analysis are explored and the limitations of the study are provided.

Next, Chapter four provides a rich description of the study's findings as they relate to the research questions that guided the collection of data. In this chapter, vignettes of the interactions of three teacher-mentor dyads provide a glimpse into how they navigated problems that these teachers faced in their first year of teaching practice.

Finally, in Chapter five, the author summarizes the study and provides suggestions for use of the results in practice and potential research for the future..

CHAPTER 2

REVIEW OF LITERATURE

This chapter provides a review of the literature relevant to teacher skill development and mentoring as the driving force in the process. The review is provided in sections related the importance of supporting teacher development, Novice teacher professional learning, learning and development as a social process, developing professional Expertise, and mentoring for skill development.

Importance of Supporting New Teachers

Studies estimate the attrition rate of new teaches at 40-50% of Novices who leave the profession within five years (Smith & Ingersoll, 2004). Nationally, retention of new teachers in urban secondary schools and hard-to fill assignments, such as math, the sciences, and special education, presents an even more challenging dilemma, with an attrition rate as high as 70% within the first three years (Johnson, 2004, Murnane et al., 1991). Ongoing teacher turnover is costly and disabling to student achievement and the development of schools as communities of student learning (Johnson, 2004). Teacher attrition is portrayed as a revolving door of new teachers leaving due to low job satisfaction and better teaching opportunities elsewhere (Ingersoll, 2001). Other researchers argue that the shortage of highly qualified teachers in poor school districts may have less to do with the difficulties of attracting new teachers than with retaining them (Ingersoll, 2001; Johnson, 2004).

Research cites a leading cause of teacher job dissatisfaction as the feeling of isolation that permeates many schools as new teachers struggle with challenging classes alone, citing teachers' expressed need for professional interaction and support in honing their knowledge and teaching strategies to improve student learning (Feiman-Nemser, 2009; Johnson, 2004; Johnson & Birkland, 2003; Smith & Ingersoll, 2004). Ironically, although elementary and secondary teaching involves intense interaction with students, it is largely done in isolation from colleagues within the confines of their own classrooms (Johnson, 1990, 2004; Smith & Ingersoll, 2004).

With high teacher attrition, the experience base of a school becomes very narrow, and a collective culture of traditions and knowledge of successful pedagogy is limited (Ingersoll 2001). Economically, school districts as a whole suffer with cost of teacher attrition and hiring replacements. Culturally, schools suffer the loss of social capital, at a cost of becoming a faculty, especially among its new teachers, who do not know one another very well. Teacher turnover can cause continual disruption to a school's sense of community, and erode the community's stability (Smith & Ingersoll, 2004). For the past decade, public school districts have sponsored formal mentoring programs to attract and keep new teachers. Yet some Novices report that formal mentoring efforts do not meet their perceived needs (Smith & Ingersoll, 2004). New teachers enter the profession with varied levels of skill, competency, and self-belief in how they instruct students. Supporting new teachers as they integrate into an existing faculty and encouraging their professional learning is a prime purpose of Novice teacher mentoring programs and the process of induction (Johnson, 2004; Smith & Ingersoll, 2004). The collaborative process of mentoring is designed to introduce new

teachers to a school as a community and support them in their adjustment and professional growth (Wong 2004). Activities that encourage teachers at every career stage to be reflective practitioners, decision makers, and problem solvers, focused on teacher learning, create vital individualized professional development (Yost, 2002). Also, Yost (2002) observed that Novice teachers call for understanding their own needs and then having a voice to meet those needs.

Issues of an urban environment complicate the demands on a Novice teacher. Coaching Novice teachers in strategies designed to improve student performance, while contending with competing social demands, requires customized professional development (Cochran-Smith, 2008). Collaboration and collegial sharing among professional learners in the school community can increase the sense of belonging and effectiveness teachers experience in dealing with adversity (Little, 1980) and decrease a Novice teacher's feeling of isolation. Mentoring and collegial collaboration have a positive impact on building a sense of community and belonging that encourages new teachers to stay on in challenging situations of urban schools (Cochran-Smith, 2008; Johnson & Birkland, 2003; Smith & Ingersoll, 2004).

Identifying characteristics that exemplify teacher development in skill and confidence during the first years of teacher induction can serve as a window into the complexities of how teachers learn to meld theory with practice. According to Darling-Hammond (2008), studying how teachers learn to draw upon and use their understanding of subject matter, learning, human development, culture, language, pedagogy and assessment addresses reveals essential insight into concrete problems of practice. Professional growth is revealed in how teachers learn to become members of

a professional learning community working together to improve student learning, and veteran teacher educators, as mentors and adaptive Experts, help new teachers learn to address multiple challenges of classroom instruction (Darling-Hammond, 2008).

New Teacher Professional Learning

The development of job-embedded professional learning is an essential function to meet challenges in the workplace. In public education, ever-changing regulations and policy create a dynamic social need to educate staff, and especially Novice teachers, of new job expectations with emerging programs and revised curriculum (Feiman-Nemser, 2003; Ingersoll, 2011). Professional learning becomes an essential component for all educators faced with changes in policy that impact teacher evaluation, curriculum and lesson planning, and classroom roles. For Novice teachers entering their first professional teaching assignment, expectations are especially demanding (Johnson, 2004). Researchers note a subtle form of hazing that Novice teachers face when assigned the most challenging classes and schedules, while having the least amount of experience to teach students exhibiting low performance skills and disruptive behavior, and for the least compensation within the faculty (Darling-Hammond et al, 2006; Ingersoll, 2004).

Theoretical Framework: Novice Teacher Development

The study of adult learning and development as a foundation of mentoring is grounded in the Social Cognitive Theory of Bandura (1986) whose studies delineate how adult learners develop within a social context. Studies of CoP's examine how professional learning organizations within the workplace situate a social context where adult learners construct meaning about work from experiences and interactions with

members of communities of practice (Brown, Collins, & Duguid (1989); Fosnot, 2005; Lave & Wenger, 1998). Experienced professionals work with new workers to identify routines and to collaborate in development of Novices' induction into the work community and its common practice as often exemplified in the model of cognitive apprenticeship. Vygotsky's Zone of Proximal Development (ZPD) (1978) supports social cognitive learning in a mentoring relationship by describing how learners develop skill through interaction with a mentor as a more capable peer who provides appropriate scaffolding techniques for skill advancement. The theoretical model of reflection on experience and practice (Dewey, 1910; Schön 1983, 1987) provides a lens into how teachers learn by examining experience, reflecting-on-practice, and problem solving to determine appropriate actions that evolve over time to development of higher skills. Having a mentor as a guide in the learning process supports the development of skill as the mentee reflects, practices, and interacts with the mentor to understand new contexts. A Novice "learns the ropes" and develops an understanding of how to apply new skill to his or her teaching in the classroom, with guidance from a mentor and within the context of a community of support. Mentoring new teachers through stages of skill development demonstrates the process of scaffolding and reflection and connecting experiences in learning to teach and its developmental outcomes.

Learning and Development as a Social Process

Bandura's Social Cognitive Learning Theory (1986) elucidates the process whereby a learner has an opportunity to learn from either vicariously or through a social process of modeling and practice with coaching. For adult learning, the process

reflects how adults learn their skills and abilities professionally and develop self-efficacy about their performance through social interaction and confirmation of their skills. Bandura (1986) presents self-efficacy as a motivational factor in cognitive learning and as a predictor of one's "persistence in activities, changing behavior, and enduring adversity" (p. 191). The degree of a learner's self-efficacy or confidence correlates positively with their motivation and self-direction to seek new behavior, a factor that serves as endurance for Novice teachers' learning. In essence, Bandura (1986) posits that adults learn through shared experiences, participation in joint responsibilities, and language that communicates learning. When applied to learning in the workplace, Bandura (1986) provides a framework for how adults develop professional skill in collaboration with partners, work groups, and social networks.

Social cognitive theory is apparent in apprenticeships and mentoring relationships in which participants engage in goal-oriented, sustained professional learning to acquire necessary performance skills and knowledge with the support of more capable performers. Informally, spontaneous groups form in the workplace to promote learning that is sponsored through CoP's (Wenger, 1998) and defined as its "joint enterprise is understood, informal, and continually negotiated by its membership" (p. 45). Mutual engagement binds members of a community of practice together with the capability to produce a shared repertoire of communal resources such as routines, artifacts, and vocabulary that members develop over time. The situated nature of learning refers to the community's belief that its members develop and adopt professional learning in social context of work situations or environments (Wenger, 1998). CoP's develop informally around things that matter to people (in the

workplace), and develop practices that are their own, in response to shared problems or needs. CoP's represent the process of social learning that occurs, and the shared social and cultural practices that emerge when people, who have common goals, interact and strive to working towards those goals (Wenger, 1998). These communities can serve to engage new members in an organization, and are involved in apprenticeship and internships in the workplace. Lave and Wenger (1991) refer to legitimate peripheral participation (LPP) as the initial stage(s) of a person's active membership in a CoP, where the new member has access and opportunity to become a full participant. LLP is a way to understand how newcomers, in informal apprenticeships, learn from veteran members about workplace organization and the skills/knowledge needed to function in the new environment. Learning involves participating in communities of practice, and building identities through social relationships. Initially people join and learn at the periphery or fringe of an organization, and as they become more competent, they move to the center of a particular community (Lave & Wenger, 1991). Learning is not just the knowledge acquired, but more the experience that is gained in the process of social participation. The concept of CoP's and LLP can explain the process new teachers experience in joining a school as a learning community. An active mentoring model can serve the broader function of socially inducting new members into the workplace community. The concept of the LLP provides a framework to understand how new members socially interact with veterans to learn the school's practices and its discourse, and sheds light on the social isolation that new members experience when there is a lack of social interaction within the school.

Situated cognition

Brown, Collins and Duguid (1989) build on the construct of CoP's in their work with "cognitive apprenticeships." Building on the social cognitive learning theory of Vygotsky, a cognitive apprenticeship emphasizes the importance of adult learning through social interaction with more capable peers and transformation of skill development. Cognitive apprenticeships can be used to understand Novice teacher development when new teachers are engaged in professional learning under the guidance of a mentor who assists their transformational journey. Cognitive apprenticeships were an early instructional design to incorporate theories of situated cognition (Brown, Collins, & Duguid (1989). Cognitive apprenticeship engage four facets of instructional design to embed learning in activity: content, methods, sequence, and social interaction. It consciously incorporates social and environmental contexts in the learning process and acculturates learners into authentic practices through social interaction (Brown, Collins, & Duguid, 1989). The technique draws on the Principles of Peripheral Participation (Lave & Wenger, 1991) and Vygotsky's ZPD (1978), in that a more knowledgeable peer, (i.e. a mentor), engages in a task with a Novice learner, (i.e. a new teacher), by describing their own thoughts as they work on a task, providing current scaffolding, modeling Expert behavior, and encouraging reflection (Brown, Collins, & Duguid, 1989). Learner reflection includes problem solving, observing Expert practice, and verbalizing adjustments that learners would make to achieve a higher skill level. Similar to cognitive coaching (Showers & Joyce, 1996) and mentoring models such as the POMM (Peno & Silva Mangiante, 2012), cognitive apprenticeships emphasize six features of the process including: observation,

coaching, scaffolding, modeling, fading and reflection (Brown, Collins, & Duguid, 1989). Making use of these features, the more capable peer, as an Expert, guides a learner through the process of acquiring a higher level of skill.

Feedback and reflection as tools in professional learning. In their work on learning from reflection on experience, Dewey (1910) and Schön (1983, 1987) posit that adults learn from their professional experiences and move to a higher level of skill when they can reflect on their actions in problem-solving situations and in collaboration with peers. Dewey (1910) and later, Schön (1983, 1987) posit a theoretical framework for the importance of reflection upon one's action as a means to learning from experience. Schön (1983, 1987) discusses reflection-on-action as a mechanism to empower learners to look back on experiences and performance and use those opportunities to review, communicate and learn from practice. In the new teacher mentoring relationship, reflection is the practice mentors use to help Novices revisit their teaching performance. Professional learning that encompasses teacher reflection can be seen as a problem solving technique and a strategy for working out dilemmas in teaching. As Schön (1983) stated, problem situations can encompass any "puzzling, or troubling, or interesting phenomenon with which an individual is trying to deal" (p. 50). Schön described teacher development as a process where teachers engage in a collaborative partnership, and identify problematic teaching situations through problem setting and problem solving (1983). Problem solving is the interactive process in which the mentoring pair work through difficulties that arise in refining work towards an established goal. However, receiving meaningful feedback is important to fostering teacher skill development (Berliner, 2004). Dantonio (2001)

sees reflective practice as a key component in coaching teachers to a higher level of skill by examining contextual situations that arise in practice.

Development of Professional Expertise

Dreyfus and Dreyfus (1980, 1986), in their model of professional skill development (the skill model), propose that learners develop via experience from Novice to Expert. The skill model, based on their research with pilots, chess players, and English language learners, denotes five stages of skill acquisition: Novice; Advanced Beginner; Competent, Proficient, and Expert. The skill model has been used extensively to study nurses' clinical skills (Benner, 2004). In education, Berliner (2004) used it to examine the practice of Expert teachers. Based upon his research, Berliner supports mentoring as a professional learning tool because "coaching matters in the acquisition of complex skills such as teaching... Estimates are that mentoring and coaching programs for new teachers reduce dropouts in their first three years by 50%, particularly where the students are the hardest to teach" (2004, p. 18). Berliner also notes that mentorship and coaching markedly increase Novices' satisfaction with the teaching profession. Berliner (2004) found that most first and second-year teachers were performing between the Novice and Advanced Beginner level on the skill model (Dreyfus & Dreyfus, 1980). This finding is important in understanding new teacher growth during the induction phase of their career. Berliner (2004) points to teacher desire for excellence and repeated practice of skills with feedback and coaching on performance as the two most important variables in the development of Expertise. The development of expertise is achieved after thousands of hours of experience, opportunities for collaboration with colleagues, and by engaging in guided

activities that apply reflection-on-action and reflection-in-action (Benner, 2004; Berliner, 2004; Dreyfus, 1980, 1986).

Peno and Silva Mangiante (2012) advanced the skill model by adding a component to purposefully operationalize movement from Novice to Expert levels. The POMM delineates mentor and mentee actions based upon scaffolding (Vygotsky, 1978) and reflection on and in practice (Schön, 1983) with a goal orientation to professional growth (See Appendix A). In particular, the authors developed a goal orientation that helps the users set goals for their mentoring actions with the aim of moving the mentee from one level to the next level on the skill model (Dreyfus & Dreyfus, 1980). The next part of the model provides examples of mentor actions that are based on Vygotsky's ZPD. The mentors' actions are used to scaffold Novice teachers' behavior as they navigate problems or issues in their environment. Scaffolding can include modeling an alternative action and providing opportunity for reflection on its potential for success (Peno & Silva Mangiante, 2012). The model describes the behavior of Novice professionals coached by a "more capable peer" or a mentor as Novices grow to a higher level of performance. The POMM provides a framework for understanding how Novices can gain high levels of Expertise with guided, goal-setting experiences. The Novice teacher is seen as developing skill and knowledge by transitioning through each stage with appropriate mentor actions (Peno & Silva Mangiante, 2012). The Novice is supported by a mentor's coaching and scaffolding assistance, appropriately suited to the level of Novice skill development. The overarching goal of the mentor's actions is to support the Novice teacher in reflecting on professional learning, so as to experience a greater sense of skill,

confidence, and autonomy for decision-making and problem-solving related to teaching practice (Peno & Silva Mangiante, 2012). The POMM can provide a framework to study mentor-mentee relationships, in order to understand how these dyads engage in constructing ideas and shared beliefs in a purposeful, goal-oriented way.

Mentoring for skill development. Mentoring, as a construct used in this study, refers to the collaborative process of a mentor, as a veteran teacher and more capable peer, assisting a new teacher to develop increasingly higher levels of skill through the use of the scaffolding techniques of challenge and support (Peno & Silva Mangiante, 2012; Vygotsky, 1978). Mentoring, in schools, can be described as a cognitive apprenticeship that emphasizes the importance of adult learning through social interaction and describes the professional learning of new members guided informally by a veteran mentor assisting the transformational journey (Brown, Collins, & Duguid, 1989). Mentoring is also regarded as the initial activity in the induction process of guiding new teachers in their first teaching assignment to learn its requirements, with mentor support and advisement of social, emotional, and instructional issues (RIDE, Induction Matters, 2009).

Formal mentoring and induction programs have increased since their inception in the 1990's, with as many as 80% of Novice teachers reporting that they had some form of mentoring support in 2008 (Ingersoll & Strong, 2011), but the form of mentoring assistance varies widely. Introductory induction and mentoring efforts may begin with helping new teachers become acclimated to the classroom and cope with immediate problems (Ingersoll & Smith, 2004; Wong, 2004). Mentoring relationships

have demonstrated the potential for assisting the Novice teacher to develop competence and sound reasoning for their actions in the classroom. The promise of induction and mentoring programs lie within the social activities in which the beginning teacher's learning is centrally focused on critical reflection of their own teaching practice in order to better support development of teacher competence and student learning (Ingersoll, 2004).

Within the lens of a constructivist theoretical framework, the mentor facilitates the Novice teacher to construct knowledge about their practice and to develop a variety of strategies to meet their students' needs and engage their learning in the classroom (Fosnot, 2005). The mentor provides feedback that is formative, rather than summative, in denoting Novice development. Receiving meaningful feedback is important to fostering teacher confidence and skill (Berliner, 2004). A key component in mentoring Novice teachers is creating opportunities for reflection-on-action to ensure teacher development is continuous and relevant to practice (Berliner, 2004).

Mentoring vs. Coaching. Mentoring, as a practice of supporting new teachers' skill development is different from coaching in that coaching focuses on development of specific skills such as improving student instruction (Showers & Joyce, 1996). In schools, an induction coach provides support to new teachers to manage the myriad issues of new teacher learning such as classroom management, student engagement, peer collaboration, and delivering instruction (Moir, NTC, 2009). In other words, a mentor will use coaching techniques to teach specific skills and therefore, the coaching process is subsumed under the mentor role. In this study, the expanded role of mentor in relationship with a new teacher will be the focus.

Empirical studies on mentoring and teacher development during the first year of practice abound (Ingersoll & Strong, 2011). Ingersoll's meta-study of mentoring programs (2011) isolated over 1500 studies on new teacher mentoring programs, but focused on fifteen of the most comprehensive evaluations of mentoring efforts based upon: 1) new teacher skill development training and teacher satisfaction, 2) mentor training and, 3) program evaluation standards. A few longitudinal studies on mentoring and induction describe teacher experiences, perceptions, and satisfaction with mentoring efforts over time (Feiman-Nemser, 2009; Fry, 2009; Ingersoll & Kralik, 2004). Little research exists to date that studies the transition of Novices to an Advanced Beginner skill level with mentor support. This study will serve to fill the gap in research.

Conclusion

State adoption of national education initiatives such as the Common Core Standards, the American Recovery and Reinvestment Act of 2009, and Race to the Top (RTT), have exponentially increased demands on developing teacher skill. Currently, two reform initiatives are in place nationally that impact all teachers: new state teacher evaluation systems and the Common Core Standards for curriculum. All teachers will be evaluated based on their professional practice, but also on their students' academic progress. It is not clear if new teachers will be held to the same standard as experienced teachers, but the evaluation criteria is identical. Such reforms intensify Novices' need for purposeful, professional skill development. New regulations guiding teacher performance and evaluation have resulted in changes in how new teachers are inducted into their schools and districts. Funding issues dictated

by becoming a Race to the Top (RTT) state have impacted the terms of mentoring/induction programs in those states. One New England state involved in the study has followed a statewide uniform approach to new teacher skill development and mentoring with assigned state-trained mentor coaches. A neighboring RTT state funds' school district managed mentoring induction programs for new teachers, maintaining responsibility for training mentors and coaching its new teachers. The variance influences the comprehensive quality of induction and instruction new teachers receive (District Informational Interviews of Superintendents, 2013).

CHAPTER 3

METHODOLOGY

Utilizing a retrospective, qualitative case study design, the researcher examined novice teachers' experience and mentor/protégé interactions to better understand how novice teachers learn and develop their teaching skill during the first year of their induction period. Specifically, this study examined the professional development experience of three second-year novice teachers engaged in a mentoring/coaching partnership as part of an induction program in an urban secondary school district.

Research Design and Methodology

The study was a qualitative, retrospective case study of three, second-year teachers and the mentors they worked with during their first year of teaching in a large Northeastern urban school district. Qualitative methodology was utilized because it offers a means to investigate complex, social phenomena of adult professional learning, collegially enacted and situated within the workplace (Merriam, 1998). By providing rich description, bringing in the voices of the participants, and extensive data analysis, this type of research can build theory inductively (Merriam, 1998).

A case study design is an appropriate methodology for the investigation because the phenomenon under study is in a bounded context (i.e., three Novice teachers, and their paired mentors, in the same urban school induction program) (Merriam, 1998; Miles & Huberman, 1994). This case study examined multiple facets of a novice's

experience in learning to teach, particularly within a context of supportive guidance provided by accomplished peers as mentors. The data collection and analysis provided in-depth description of what occurs within Novice teachers' mentoring experience as revealed in an authentic context of Novices engaging in and reflecting on professional learning (Merriam, 1998; Yin, 1984).

Sample and Setting

Three teacher-mentor dyads were selected based on their participation in a formal induction program in an urban district in a New England State. The teacher participants who were selected had begun their teaching careers in the district as their first professional teaching assignment out of teacher training. Their mentors worked with them all during that first year. All three dyads were employed by the same urban school district.

The new teachers were selected because they were returning for a second year in the district. Although they were not matched with a mentor in their second year, they all had the experience during their first year of induction. Mentor participants that were selected for the study were the Induction Coaches assigned and matched to the three new teachers during their first year. The coaches were teachers from the district who were hired by the state department of education to be trained and serve as mentors to new teachers in their districts. They were matched with new teachers by content area or grade level. The district had participated in the states' Induction Coach program for three years. Their program followed the model of the New Teacher Center (NTC) of the University of California at Santa Cruz (Moir, NTC, 2009). All three mentors were trained by the NTC in coaching and mentoring techniques.

The site (district) was chosen because it had a formal induction program in place with a mentoring component. The researcher sought permission from the district Superintendent to recruit participants for the study. The superintendent was assured that the identity of the district and its participants would remain anonymous. The Superintendent agreed to allow the researcher to recruit participants and approved the district's participation.

Participants

Table 1 below denotes the characteristics of the three teachers who agreed to participate in the study. Following the table, a brief description of each participant is provided.

Teacher	College Major	Pre-Service Teacher Education	Level Taught Year 1	Subject Taught Year 1	Level Taught Year 2	Subject Taught Year 2
Larry	Second. Ed Math MS Endorsement	HS & MS Student Teaching	MS: 6 th	Math ESL classes	MS: 6 th New School, New team	Math
Michael	Business /Sports Management	PostGrad Alternate ED. HS Student Teaching	HS: 10 th	C Prep Math	HS: 9 th	ESL Math Academic Math 9
Rachel	Biology	Post Grad Alternate ED HS Student Teaching	HS: 10 th	Chemistry	HS: 9 th	Integrated Science

Table 1- Participant Characteristics

Larry's teacher education was focused in secondary math with a middle school endorsement. His student teaching experience was completed in a suburban high school and a middle school as a math teacher. His first year of teaching sixth grade math was in an urban core middle school. Now in his second year, he is teaching sixth grade math, but in a different middle school in the district. His math classes, during his first and second years of teaching, contained a high percentage of students for whom English was a second language (ESL) students as well as students with special needs who had Individualized Education Plans (IEP's). He had a part-time special education teacher with him to help with the students with special needs. In January of his second year, he started a Masters Degree in ESL that his district nominated him for. Larry's coach, Mentor 1, was matched with him because she taught Math, however, she taught at the elementary level for ten years in the same school district.

Rachel studied biology and related sciences in her undergraduate degree program and earned her teaching certificate in a post baccalaureate degree program. She worked at the college level for three years in enrollment services while she was completing her teacher certification in biology, chemistry and general science. Her student teaching was performed in a suburban high school in science and she developed strong collegial ties with her cooperating teacher that she maintains two years later. In her first year in the urban district, she taught five Chemistry classes, and now in her second year, she is teaching five ninth grade integrated science classes with a high number of students with IEP's and for whom English is a second

language. She started her second year after the first term because her first child was born in September. Mentor 2, who is paired with Rachel, has been a science teacher at the middle school level for five years in the same school district.

Michael studied Business and Sports management in college and then later completed his teacher education and earned a mathematics certification. His student teaching was done in a suburban high school. He also purposely substitute taught in three different school districts (affluent suburban, urban, and suburban), “to see what environment he liked best - somewhere in the middle.” In his first year of teaching, he taught five College Prep Algebra classes at the high school. In his second year, he is teaching mostly ninth grade with many students who have IEP’s with no Special Education support in his classes. Michael’s coach, Mentor 3, was matched in the content area of math, and had taught math at the middle school level for eleven years in the same district.

Pilot Study

Prior to data collection, a Pilot study was conducted with four new teachers as participants from school districts other than the study site. The participants in the pilot study had the same characteristics as those previously described as new teachers to the profession in their first year who had year-long mentor support as part of an induction program. The purpose of the pilot study was to pre-test the data collection instrument and interview protocol of new teachers. The interview questions were derived from the research questions of the study. The results of the pilot study helped refine new teacher interview questions and developed the final protocol used in the actual study (Appendix D). The focus was to primarily pre-test the interview protocol and

interview questions to check their dependability and elicit information that coordinated with answering the research questions to build credibility in the study's findings (Yin, 1993).

Data Collection

As is typical with qualitative case study research, data were collected through a variety of qualitative methods such as interviews and document examination, (Merriam, 1998).

Interviews. Semi-structured interviews teachers were conducted by the researcher to gain their perspectives and experiences as to how they acquired knowledge about teaching and learning during their first and second year of teaching. Each interview took about sixty minutes and was digitally recorded with the participants' permission. The participants were asked to reflect on their first two years of experience as a teacher, in retrospect, and to reveal their experience in learning to teach with mentor support (See Appendix C). Particularly, the interview questions asked teachers to describe changes in the ways they approached planning, teaching and problem solving in classroom management.

As part of the interview process, teachers were provided information on the POMM (Peno & Silva Mangiante, 2012) and were asked to examine the Novice to Expert skill model component. They were asked to read the characteristics of teacher practice at each level and place themselves at a level from Novice to Expert when they first began their teaching practice, when they finished their first year of teaching, and at the time of the interview. The results of the Peno and Silva Mangiante (2013) study of life-time career teachers suggests that applying the constructs of the POMM (2012)

to guide new teacher learning with the support of mentors trained in coaching methods, can assist Novice professional growth across their careers. Their model for describing teacher growth along five stages of development: Novice, Advanced Beginner, Competent, Proficient, and Expert, indicates the benefit of mentor support that applies to each stage of professional growth and attaining a higher level of skill development (See chapter two for an explanation of the model). The model served as a starting place for discussion about these Novice teachers' learning and development. The POMM is included in Appendix A.

In addition, semi-structured interviews with the teachers' mentors (see Appendix E) were conducted in order to triangulate the data regarding teacher learning and development during the induction period. A prime focus of the interviews was to elicit the Novice teachers' and mentors' recalled experience and perception of the mentoring relationship and how it affected teacher development. Interviews of mentors focused on mentor actions that assisted Novices during their first year of teaching.

Document Examination. An examination of documents pertaining to the mentoring program (Novice reflective activities and mentor observation feedback) was conducted to provide further information about mentoring and teaching practices. Teacher reflections provided explanation of the ways the Novice teachers tackled challenges in the classroom. Mentors provided reflections to demonstrate the challenging aspects of teaching the lesson for the teacher to use to interpret, support, and guide their learning.

Mentor observation feedback sheets were documents examined to identify types of activity and feedback given to the new teacher. The feedback forms contained different strategies to collect data relevant to the teachers' needs and a focus for mentors' classroom observations (i.e., scripting to get teacher's talk/student talk, mapping the classroom to capture teacher's movement relevant to on-task/ off-task behavior). Mentors' provided goals-setting, observation, feedback, reflection-on-practice, and modeling with their mentees. These actions were captured on the feedback forms and provided to teachers.

Data Analysis

Data were analyzed and reduced around research questions, read and reread for themes and patterns (Merriam, 1998). Data in the form of transcription of individual interviews, field notes, and data compiled from document examination was analyzed during and following data collection. As Merriam (1998) recommends, data analysis best begins with careful reading and coding of data with each sample (i.e. interview, document examination) immediately after data collection. Each interview was coded by pseudonym for participant and linked to the mentor to preserve the connection of the perceptions between new teacher data and paired mentor data. For example, a new teacher interview transcript was labeled "Larry" and linked with Mentor 1. Similarly, a document such as a mentor feedback form would be labeled by the type of activity of feedback (i.e., scripting, mapping,). Data that answered research questions was labeled by question and number. As categories, patterns, and themes emerged from reading and rereading the data, the words of the participant were brought to life (Merriam, 1998). These data were coded by a new label on the transcripts: quotations

were written on color coded notes and also coded by participant and type of data. Those notes provided an opportunity to look at the data beyond the research questions to gain an understanding of factors not predicted when designing the study, such as how factors and individuals from the community of practice other than the mentor influenced new teacher learning (Wenger, 1998; Yin, 1994). Continuous coding, sorting and comparing the data assisted the systematic approach to looking for dominant patterns and emerging themes in the collected data that align with overarching research questions on novice teacher development and mentor support. Analysis of the research process allowed the researcher to develop and modify the working hypotheses and to sustain a careful analysis of the data collection process (Erlandson et al, 1993; Merriam, 1998).

A peer reviewer, familiar with qualitative data analysis was engaged to independently read and reread interview transcripts to discover categories, patterns, and themes among the data, applying the same coding process as previously described. The researcher compared the results of the peer reviewer's analysis with categories, patterns and themes revealed in her own data analysis. The themes that emerged as common to both analyses are included in the study. Peer debriefing helps to build credibility and objectivity to data analysis by allowing a peer, as a professional with an understanding of the study, but outside its context, to analyze data for comparison (Merriam, 1998; Erlandson et al., 1993)

Limitations of the Study

To insure the trustworthiness of the qualitative data collection and analysis, the researcher took care to ensure its generalizability, credibility, dependability, and

confirmability (Erlandson et al., 1993). Generalizability is concerned with the extent to which the findings of one study can be applied to other situations. The generalizability of a single case study is empirically limited (Erlandson et al., 1993). According to Merriam (1998), the issue of generalizability plagues qualitative investigations without the controls inherent in quantitative research, such as large sample size or equivalency between the sample and population. However, the researcher in a qualitative study has the obligation to provide a deep, detailed description of the study's context to enable readers to compare the "fit" of the study's context and findings to their own circumstances (Merriam, 1998; Yin, 1994). In chapter four, the author provides rich description of the experiences of three teacher-mentor dyads learning to teach in one secondary school district. The responsibility of determining generalizability therefore resides with the reader. To insure credibility of the data, the researcher took care to purposefully select participants that were appropriate given the research questions. In addition, the researcher performed member checking and peer debriefing to be sure she was portraying the participants correctly and that bias was not an issue. Dependability and Confirmability can be determined through audits of the researcher's field notes, raw data and documentation examined (Erlandson et al. 1993). For this purpose, it is the researcher's responsibility to maintain these records in their original form in a secure way. The chart in Appendix C illustrates how the researcher has addressed each issue by referencing appropriate elements of the study.

CHAPTER 4

FINDINGS

The results of this study reinforce the notion that teaching is a complex profession, and learning to teach is an on-going process and may be lifetime work for many teachers. For the new teacher in an induction mentoring program, learning to teach can be seen on a continuum, beginning with pre-service and student teaching, and continuing through the first few years of professional experience. Feiman-Nemser (2001) posits the early years in a classroom are an intensive and formative time in learning to teach, influencing not only whether novices remain in teaching, but what kinds of teachers they become.

The results of this study are presented to address the research questions that guided the study.

1. Using the P.O.M.M. as a guide, where do second-year teachers place themselves as new teachers at the beginning of their mentoring experience in their first year, and currently, as experienced second year teachers, by describing their point of development along the Novice to Expert skill model (Dreyfus & Dreyfus, 1980).

How do second-year teachers acquire knowledge about teaching and learning in this urban, secondary school district, especially in reference to their experience with mentoring and induction?

2. How do these teachers describe their transition between these points (Novice to Expert) from their first year to now, and how does the pattern of growth compare with development described in the P.O.M.M?
3. How do these teachers see their mentoring experience as playing a role in their transition between the skill levels as they describe? (How does mentor support, and specifically, mentor actions and language, influence Novice professional learning along the Novice to Expert continuum)?
4. Using the POMM as a guide, how do the mentors describe their mentees' skill, when they first began the mentoring process and currently?
5. To what do the mentors' attribute their mentees' transitions in skill over time?

The first four research questions ask new teachers to recall their teaching practice at the beginning and end of their first year with mentor support, and determine the stages along the POMM that best described their skill in teaching at the time of the interviews (midway through their second year of teaching). To help them look back on their development, the researcher prompted new teachers to think about how the mentoring relationship aided in their transition to a higher level of skill. Questions five and six are focused on the mentors' perceptions of the teachers' skill development during the induction period.

This chapter is presented in two sections. The first section represents the cross-case analysis of the experiences of the three teacher-mentor dyads. In this section, the common themes that emerged from the data are discussed as they relate to the research questions. In section two, vignettes of each teacher-mentor dyad are provided that

offer a snapshot of the mentors and teachers working through a particular problem or issue.

Section One – Cross Case Analysis

Using the POMM (Peno & Silva Mangiante, 2012) as a guide, all three teachers described themselves as Novices at the beginning of their first year and felt they grew in professional skill to at least the Advanced Beginner level by the end of their first year. Describing their growth in their second year, all new teachers saw themselves still at an Advanced Beginner level without mentoring support. Due to cuts in funding, state Induction Coaches were no longer provided to districts to continue mentoring second year teachers. During the second year, teachers reported dealing with challenges similar to their first year along with new challenges that came with changes in their teaching assignments. However, in certain aspects of their practice, teachers reported that they were moving towards Competent in classroom management skills. Individual challenges and shifting contexts made applying rules learned in theory in their teacher education programs, a problem-solving dilemma in the reality of practice.

Supports and Challenges to New Teacher's Professional Growth

To answer research question number two, the teachers were prompted to consider the main sources of support for improving their teaching skill and any sources of challenge that hindered their progress. The data indicated that each teacher sought or received a variety of support to further their growth. Patterns and themes uncovered in the data also revealed challenges commonly faced by these new teachers. The following themes emerged from data as presented in Table 2:

New Teacher Supports	New Teacher Challenges
<ul style="list-style-type: none"> ▪ Formal Induction coach/ mentor guidance ▪ Collegial support with peer (informal) ▪ District-wide PD/workshops ▪ Intrinsic desire to succeed 	<ul style="list-style-type: none"> ▪ Classroom Management ▪ Knowing students & winning their respect ▪ Engaging students in effective instruction ▪ Knowing school cultural ▪ Isolation: Limited team/department support ▪ Insufficient resources/time to prepare

Table 2 - New Teacher Perception of Supports & Challenges to Skill Development

Supports

All three new teachers pointed to their mentors as their primary source of support in “surviving the first year of teaching.”

Formal Collegial Support. All three teachers frequently spoke of collegial support as the corner stone of their growth. Formal mentoring was provided to the new teachers by the district for ninety minutes weekly. State-sponsored induction coaches as mentors were paired with new teachers in a year-long professional learning program developed in the state model from the New Teachers Center (Moir, 2009). Mentors were trained in providing social/emotional and instructional support of new teachers, and ideally matched with mentees by level or subject taught. The mentor/ induction coach training was individualized to match instructional needs of the new teacher, and all three new teachers spoke favorably and with gratitude for the extensive support they received in their year-long mentoring experience.

Informal Collegial Support. All three teachers reported seeking support through informal collegial relationships in their middle school teams or high school departments. Michael spoke of seeking advice from his pre-service college supervisor with whom he still communicated frequently. In discussing her student teaching experience, Rachel referred to science teachers who she could turn to for sharing engaging lessons. Although she reported collegial support was missing in her first year teaching chemistry, she had currently instituted a “share box” within her department for ideas that worked to engage science students. It was her hope that this box would encourage collegial collaboration in her department. All three teachers referred to individual colleagues whom they trusted and connected with in their schools to provide peer support “to run questions by or work out testy situations.” Collegial support from multiple sources was a dominant theme across the three cases.

Professional development (PD). The three teachers reported that they were required to earn thirty hours of PD in district-lead workshops in their first year, and the formal mentorship component counted for 15 of the total hours. Sixteen hours of PD is required of second-year teachers via teacher-elected district workshops. External supports teachers individually sought were from outside training, coursework, networks, and websites based on teacher content needs, such as those for tuition-free Masters Degree in ESL at a local university that primarily recruited urban core STEM (Science, technology, engineering, and math) teachers for their program. Larry reported that he was being sponsored by his district in his second year to attend a Masters Degree in ESL Program.

Intrinsic motivation to succeed. All new teachers, in varying degrees, expressed a desire to want to be better at teaching, especially in ways that connected students to their content area and engaged them in learning in meaningful ways. Rachel said she knew she wanted to be a science teacher since High School, saying “she wanted to become a teacher who could make science intriguing for students.” Larry wanted to figure out how to reach as many students in his class for individual help. He worked at planning lessons so that he limited his teacher-directed instruction, opting for more student-directed lessons, and consciously spoke to each student to check their comprehension. Michael seemed at a loss, in the beginning, for how to connect to his students, but recognized its importance and worked hard at it throughout his first year.

Challenges

When new teachers talked about challenges to their professional growth over their first year, classroom management dominated the conversations in terms of winning student respect for class rules and doing quality work, managing time, workload, working with limited resources, knowing students and school culture, and involving students in class work. Their greatest challenges, however, were learning how to apply rules of classroom management in different situations. This is typical of rules-oriented Novices who have not yet experienced a variety of contexts within which to apply their previously learned rules (Dreyfus & Dreyfus, 1980).

Classroom Management. All three teachers reported classroom management as their dominant challenge. The first three to five months of the school year were spent working through issues of how to better manage classes with their mentors. One

mentor commented that often the progress made was cyclical, as the new teacher would revisit the topic of classroom management in a host of forms such as relationship building with students, organizing the classroom and instruction, engaging students in instruction, student-centered learning, knowing your students, knowing school culture, and winning student respect for classroom rules. According to Mentor 1, “Their learning grew deeper in each area with repeat feedback from a different angle.”

Isolation from colleagues/Lack of team support. Isolation from colleagues and lack of collaborative partners is cited as a leading cause of teacher dissatisfaction with work (Ingersoll & Smith, 2004; Johnson and Birkland, 2003). New teachers in their first year especially need to learn how to become part of the Communities of Practice (CoP's) (Lave and Wenger, 1991), wherein new members of organizations join the social interactions of work and collaboration. Mentorship can serve as an introduction to the workplace community of a school. All three teachers spoke of isolation from team/department members. Mentoring and Induction have been shown lessen a 50% attrition rate of new teachers leaving their positions within five years, with 70% rate in urban core schools (Ingersoll, 2011; Smith & Ingersoll, 2004). This construct is explored more deeply in Section Two within the vignettes of teacher-mentor interactions.

Insufficient resources/time to prepare. In the district where the study took place, the promise of a second-year of mentoring for its new teachers was cancelled due to a lack of funding. While this was a disappointment to the teachers, they also spoke of the difficulties from a lack of books, materials and supplies to implement

their lessons. They felt the pressure of spending more time seeking alternative materials to teach their lessons and reported they had less time to correct student work and provide appropriate feedback to students.

Perceptions of Skill Levels

All new teachers described their skill level at the beginning of the school year as being that of a Novice as described in the POMM (Peno & Silva Mangiante, 2012). All three also felt they had reached the Advanced Beginner level by the end of their first year of teaching. Some teachers felt they were at different levels in certain skills at the beginning of the year; for example, classroom management. While they felt more comfortable delivering instruction as new teachers, they reported that their classroom management skills were truly at a Novice level. Michael placed himself on the POMM as a Novice in regards to classroom management and knowing how to reach and teach the students this school. He had liked his student teaching experience at a neighboring suburban high school, but while teaching 10th grade Algebra in an urban core district, he felt like he was “a stranger in a new land.” Michael expressed a need for a second, shorter student teaching experience in an urban school to better prepare him for the differences in teaching in urban schools. He also said he was hired late in September and had missed new teacher orientation, so he had no clue how to organize his classes.

The teachers expressed confidence in their content knowledge at the beginning of the school year. Michael stated, “I did not need help in knowing the subject matter of math, I had over 36 college credits in math, but I did need help in

how to engage the students in my class to want to learn math, not everyone's favorite subject.

Michael said he was frustrated with his students' lack of work and interest, and exclaimed, "My mentor came just at the right time, I was getting ready to quit and go back to subbing. She helped me think about my teaching and I saw hope of things turning around." Mentor 3 saw Michael's level as, "just at the start, even Pre-Novice" in his learning about the new culture of an urban school. She claimed:

Michael was overwhelmed with the cultural differences in this urban core high school, and he compared his experience in teaching to other suburban high schools familiar from his own education, student teaching and substituting.

We worked for the first four months on how to get to know the kids in front of you.

Rachel, who worked with Mentor 2, stated that she started pretty much a Novice in classroom management when asked to place herself on the POMM. She too felt confident about instructional ideas in her classroom and would even try to share things that worked well with other science teachers, and also to seek new ideas about how others taught concepts. But she admitted that she lacked organization skills and consistent classroom management. She relied on "students taking notes for the start of the class as a way to settle down a noisy class." She added that she also kept looking for routines to make her practice and work load for correcting student work more efficient. Rachel understood how her mentor's feedback helped her reflect on her practice. One Feedback Form Rachel shared from the early mentoring phase was her coach's scripting of her class for alternate ways for students to engage students in the

learning process and still have notes to study the content. The scripting revealed teacher talk and student talk, side by side in a T-box, scaffolding teacher learning with mentor-posed reflection questions and suggestions for helpful websites aligned to teaching strategies. Rachel found this to be a very helpful tool.

Like many first-year teachers, Larry recalled requesting feedback on his classroom management skills with his mentor and to set goals to learn more about how to focus his ESL students on their group work responsibilities and routines. Larry recalled that his mentor observed and scripted his lesson, and noted at ten minute intervals, Larry's classroom management style by identifying what he said, where he stood, and which students showed on-task and off-task behavior. Following observation, the dyad debriefed with the data feedback. When Larry viewed the data map on a seating chart, he remembered thinking, "I'm talking with this one group too long, there's more loud talking in the back today, and I wish I had an aid to help give more attention to more kids." Larry said, "I didn't realize my back was to one group and I didn't see their off-task behavior." He described a time when he saw how he was helped by his mentor to increase his skill in classroom management. He noted that he and his mentor mutually constructed a new seating arrangement with partners rather than groups after viewing the data-driven feedback sheet from his coach's observation of his class. From that observation, Larry learned to consciously move about the room to meet with each smaller group. Larry said he saw adopting the new seating plan as a successful strategy to minimize off-task behavior and encourage more student involvement with their work. Larry added that he found he increased the effectiveness of the strategy by changing table partners every month or so, to insure

more-on task participation. He said his classroom management improved when he tried “to stay one step ahead of the kids.” Larry’s skill in adopting the successful strategy and then adapting the rules to changes in the context demonstrates a Novice making strides toward an Advanced Beginner stage in this one aspect of teaching (Peno & Silva Mangiante, 2013) by applying strategies to remedy the situation (NTC, 2009).

Advanced Beginner Skill Level

As new teachers move towards a higher skill level, Advanced Beginner on the POMM, they start to see that rules have exceptions in some cases, but still struggle when handling challenging situations. The new teacher recognizes the context of the situation, using guiding maxims to deal with specific situations. The goal when moving to a higher level of skill is to increase awareness of the relative importance of different situations. The Mentor Actions section of the POMM helps guide the mentor to assist the learner to reflect on practice as it applies in different situations, to model alternative approaches, and provide feedback on the learner’s construction of practice in a variety of situations (Peno & Silva Mangiante, 2012).

The data revealed that in all three dyads, new teachers and mentors alike placed new teacher development by the end of year one at the Advanced Beginner level of skill. When Rachel was asked how she would describe her teaching skill development, she said she had started to operate on an Advanced Beginner level in the latter part of her first year, when she developed confidence to structure her Chemistry around group work and using student work to guide the development of her lesson planning. She said she had to teach the basic foundations of chemistry, “Chemistry is

chemistry”, and she knew she had a curriculum she was expected to follow, but she began enjoying having students bring their questions for the class to explore. She had developed and made individual “white boards” for students to write out ideas, thoughts, and work out problems that occurred to them during class discussion. Rachel understood that her skill in teaching had risen to a higher level when she realized her instructional strategies had moved away from teacher-centered lecture and student note-taking, to a greater awareness of student involvement. She noted the change in classroom management evolved from feedback from her coach and ideas gleaned from good science websites. She acknowledged a sense of isolation from the rest of the science department, but talked about the importance of having one other new science teacher as a colleague to share ideas and questions about teaching. Rachel said the new science teacher left at the end of her first year because she could not adapt to teaching in an urban school. Many teachers in the high school science department were not open to adopting new ideas or sharing teacher-prepared material, as Rachel said, it was “almost like a hazing of new teachers who have to struggle and pay their dues.” She still struggled with organization and time management in trying to get student work back in a timely way, but she was still working at it and pledging to get better at that in her second year. As she said, “I’m just choosing my battles.”

Larry also felt that his skills had grown in classroom management and insuring more on-task behavior at the end of his second year. He thought that, although teaching math to ESL and students with special needs in his class was still a challenge, he had learned how to teach the math topics via projects and group work, which helped students become more engaged. By the end of the first year, Larry’s Mentor

mentioned how he had restructured his classes to be more group work and project oriented. Larry credited his growth in skill to a higher level in managing his classes to suggestions made by his coach and their weekly collaboration.

“At the end of my first year, I learned a lot from my coach about how to organize my class time and try to get to as many students as I could with individual help to partner groups. I also was glad to recognize how I had grown. At the beginning of the year, I would talk with a science teacher on another team, and we would gripe about how bad our classes were, not paying attention to their work, not on-task. Around April, when we were talking, I said, ‘I no longer had the same problems happening in my classes...I fixed them.’ I stopped visiting with her sometime after that because I felt bad that her problems (with classroom management) were getting worse.

In his mentor’s estimation, by year end, Michael was functioning on an Advanced Beginner level, trying new approaches to get to know his students and had won their respect. Michael himself expressed a concern that his teaching skill with managing challenging classes was still not where he wanted it to be, and wondered if he would really more comfortable in a suburban environment that he was more accustomed to from his own experience and that of his student teaching. He attributed his success in learning to teach under challenging circumstances to his mentor, saying his weekly interactions and encouragement from his mentor kept him going. He still didn’t feel confident that he was growing in ability to connect math instruction to his students.

Feedback. All mentoring dyads worked with data-driven forms, examined in the document analysis. Mentors explained how they worked during the whole first year with data-driven feedback based on classroom observations. Mentor 3 stated:

The new teacher and mentor discussed what focus area the teacher wanted to work on and which feedback tool would help new teachers get data to see how goals are met and how their teaching was reaching their students, to encourage teacher ownership of problem-solving process.

During his interview Michael revealed how Mentor 3 would give him a choice of which tool to use for feedback during their post-observation meeting. At first he said he “didn’t know the tools”, so the choice was not clear as to how it would help him, but after a couple of meetings, he related, “I was surprised at how seeing, for instance, a script of my class showed me which students were involved and on-task, and any who were not. It also made realize how my actions can change student actions.”

Rachel spoke of how she liked feedback and getting information back on her classes. But in the beginning, she had wanted more direct advice for what to do with the information on the feedback form for teaching future classes. Feedback after observation of practice is a key scaffolding strategy in an instructional coaching model (Dantonio, 2001).

Goal-setting. All mentors and mentees reported instances of setting mentoring goals based on new teacher individual needs, as this was part of the protocol for coaching. Both mentors and new teachers described the coaching protocol as a routine in which: 1) the new teacher sets the goal and request for

feedback; 2) mentor observes teaching and records feedback in the form of data that focused on the mentee's questions and goal; 3) the dyad debriefs following the observation to discuss how the data informed the mentee's questions about teaching; and 4) new teacher takes time to reflect on the data and problem-solve.

Social Support. Mentors and new teachers alike pointed to the mentoring/coaching process as supporting new teachers in their learning about the social context of the school and the cultural environment of students. Mentor 2 spoke of this while commenting on Michael's placement along the POMM.

For Michael, learning about the cultural and social climate of this urban high school was the first step in developing strategies towards classroom management, and gaining students' attention and respect. His first four months may have been spent in taking a close look at learning who his students are and their cultural disposition for understanding what motivates them and what builds respect in an urban school. While he was confident about the content knowledge of his subject, Algebra, he was a 'beginning' Novice in terms of knowing how to reach students and build a relationship with them. Every day he seemed astounded to learn about the life his students had outside of school. The environment he lived in was so different than his students' world. We talked often in those first four months about those differences as school culture and how to learn to know the students in his classes and build relationships.

In section one, the themes that were identified as common to all three dyads as they related to the research questions were presented. In section two, effective

mentoring strategies will be explored in the context of teacher-mentor interactions in problem-solving situations to provide a snapshot of the mentoring relationship.

Section Two

Mentor Strategies and Actions

Table 3 below identifies the actions that mentors’ perceived helped their mentees’ skill development. In particular, it describes goals or focus for mentors and new teachers to use in working towards goals and scaffolding strategies for new teacher growth in skill to a higher level during their first year of professional practice.

Mentoring Actions/Mentee Goals	Mentor 1	Larry	Mentor 2	Rachel	Mentor 3	Michael
Assess learning needs	x	x	x	x	x	x
Induct into new social context			x		x	x
Provides personal support	x	x	x	x	x	x
Guides individual challenge	x		x	x	x	x
Provides feedback on learning	x	x	x	x	x	x
Assists learner reflect-on-practice	x	x	x		x	x
Models effective strategies	x	x	x	x	x	x
Recognizes growth to new skill level	x	x		x	x	x

Table 3. Mentor Actions to Support and Challenge New Teacher Growth

The actions highlighted in Table 3 are shown in practice between the mentors and their mentees in the following vignettes.

Larry and Mentor 1. As a Novice, Larry sought advice on how to better manage his classroom to be more effective in his routines to provide individual help to ESL students in his class. As a first year teacher, he was hired after the school year started to teach sixth grade math and missed the new teacher orientation. He had no time to organize classes, develop routines, prepare lessons and get to know his students who had been under the supervision of a substitute teacher for over a week. As Larry stated, “Unlike my experience in student teaching under the supervision of a classroom teacher, I had to develop classroom management routines, where there weren’t any under a substitute, and I didn’t know how to do that.” After about a month of trying to organize the class and trying to learn from trial and error, Larry was frustrated and felt disrespected:

I didn’t seem to be getting anywhere in focusing students’ attention. I was just about ready to quit when I met my coach in early October. When she asked about ready to quit when I met my coach in early October. When she asked how it was going, I told her everything. Instead of coming back next week, she came back the next day, and she listened to the whole situation. And then we began working on how to better organize my classroom. My coach would observe my class and afterwards meet to talk about ways to change things, to experiment on how my changes could make improvements happen. She scripted my class and recorded on a seating plan which students were on-task with their work and who was off-task in private conversations, and also where I stood in my class at various times. When she gave me the seating plans, I was glad to see I spoke to most kids during class about their work, but her “map” showed me which students weren’t working and just talking. Together

we came up with a new seating plan with partners instead of groups of four. I changed my classroom the next day my coach returned the next week, she again scripted my activity and students' on-task and off-task behavior. I already saw an improvement in seeing more kids working and her map just gave me proof that it worked. I was glad to see that I "hit on" almost everyone for individual help, and there was much less off-task behavior. I found overtime like a month I kept the partner-plan for grouping, but had to change partners because some would start getting off-task. New partners helped to decrease off-task behavior.

Both Larry and his mentor said he started at the beginning of the year as a Novice on the POMM because he was sticking to a set of rules, or even feeling like he "had no rules" to organize his classroom, but could not regard the situation on his own to decide on strategies to change arrangements and see other solutions. Larry and his mentor continued to meet once a week and work on other issues of classroom management for the next month or two. Larry said that he continued to work at keeping an eye on student on-task/off-task behavior. Working with his coach, he started to shorten the "lecture time with overhead projector" during which time he showed students how to do new math problems. He experimented with different activities so he could "start off the class, focus kids' attention, and check homework." He began using a "warm-up question" based on the homework or an interesting puzzle to solve, explaining, "I was catching their focus from the start and having time to check how students did on homework. I got some of my ideas from math websites my coach suggested. Larry remarked, "I was beginning to feel more in control of activity

in the class and students seemed to giving more attention to their work.” By the end of the year, had determined that he was working at the level of an Advanced Beginner on the POMM, because he “recognized how the issues surrounding a problem and how different circumstances called for different solutions.” Larry said he could see when to stop pushing ahead (in the math curriculum) and stop to find a different approach to a problem, or have a refresher so everyone could have a review before we moved ahead. He said that this coach had helped him to “reflect on his methods so he could see different solutions.”

Rachel and Mentor 2. Rachel initially identified herself as a Novice on the POMM saying she faced challenges in classroom management from the very beginning of her first year as a chemistry teacher at the high school. She enjoyed the New Teacher Orientation as a half day district PD, and especially found meaningful the time spent visiting a near-by charter school to observe a veteran science teacher who Rachel enthusiastically added, “Was teacher of the year.” Rachel said she was really enthused by observing how the teacher would engage students’ imagination through “firing-up” thought questions at the start of class, and said she wanted to borrow that idea for her classes, but added, “ I couldn’t do that with my Chemistry classes for a few months, because rather than trying to fire them up, I needed to calm them down. It took a long time to get kids quiet and ready to listen.” She also admitted she felt disorganized, and had to shout out for kids to be quiet, and “some students would start talking about all their personal stuff while I was scooting around checking homework, taking attendance.” She said she soon began starting the class off with a lecture and having everyone take notes, so she would know that she covered

all the important material. Sometimes she would get so frustrated with students who showed up late, no notebook, no pen, and she'd have to stop and supply them. She said she really didn't have the class's interest and attention, and kids seated two to a lab table would just sit talking about what they did last night. She wasn't being the teacher she wanted to be, and she added:

I'm considered a career-changer, and took a Teacher Certification Program after graduating college, while working in enrollment services, and this wasn't I pictured it would be. I liked most of the students, tried to give them positive reinforcement when they did well, but was having a hard time finding opportunities to say they were doing well. I said I was a Novice because I didn't know all that went into getting classes organized and feeling like we were working together. I didn't really have strict rules that I was applying, but I kept trying to get students to work and really listen. Having them take notes at least gave me assurance I was following the curriculum. When my coach (Mentor 2) started working with me as a new teacher I was a little uncomfortable with kids' questions like "why is she coming into our class", but when came in the kids were much quieter. When my coach asked me what issues I would like to work on, I asked for feedback on how I could get better responses to my questions in Chemistry. She offered to script my class.

Rachel shared a copy of feedback from her observation and said:

The scripting was actually an activity where my coach wrote down Teacher Talk and student talk at different intervals during the class in what she called a T-scale. The form was one she used later on in different ways to show me my

speech in class. This first script showed me what I said and how the students in class responded. I was surprised to see she wrote T-said, “All of you get your books. All 32 students got up at the same time to get books from the shelf. I didn’t know how to share on set of books among five classes and 125 students. I didn’t realize how impulsive and ‘off the cuff’ some of my directions to students were. I also noticed she wrote that two or three students would answer my questions with only a couple of words. When we debriefed after class, she asked me what I like to see for the kind of responses in class. She offered a suggestion to have students work out solutions to categorizing problems with T-scales to structure the comparisons for how two chemicals would react with a third element. She suggested students make the diagrams in their notebooks as a way to start of class with solving a problem, possibly discussing solution in pairs. I tried the idea out and when my coach observed me the next week, I really appreciated seeing the feedback on her observation of students discussing the problem and jointly working to solve it. I wasn’t sure how this approach would work with high school students, since my coach had taught science but at the middle school, but I used the idea often to start class.

Later in the year Rachel spoke of how she set up new routines with “white boards”, tablets she made out of a plastic film over cardboard that students used to solve equation problems using the concept of the T-scale. She said she was growing in her skill to adapt new ideas to her practice, and like the way using a system gave her a routine to use throughout her classes when she wanted to get more participation.

She realized that a student's response to a question was tempered by how she presented the question and thinking ahead about her expectations for what she wanted from students. Rachel said her coaches' feedback helped her recognize the importance of understanding the context of situations to know what strategies apply. By the end of the first year Rachel categorized herself as an Advanced Beginner because she was generating her own ideas on how to handle situations because she looked deeper at the context, before taking action.

Michael and Mentor 3. Michael also designated his skill level as Novice when he began teaching Algebra 1 at system in the high school. From the start, he did not know how things were done in this school. The strategies he used in student teaching to demonstrate math problems and solutions were not working here. He designated himself a Novice, not because he felt inflexible with his rules, he did not even know how to apply his training to this situation. Also he said he was hired late, about two weeks after school started, and did not attend the New Teacher Orientation. He wished he had some guidance in what to teach students, but there was no department chair or other teacher to help. The principal gave him a curriculum guide from the Dana Center with standards and objectives, but without examples or lesson plans. Michael revealed he was overwhelmed with attitudes and behaviors of students in his classes and was at a loss for how to teach them. He had some experienced substitute teaching in an urban school system, but at that time did not have the responsibility to have to grade them or really instruct them. He was amazed at how many kids in his classes, usually taken by freshman, were repeaters and juniors and seniors. Michael said everyday he would discover something disturbing about

students in class, like a ninth grader who was claiming he was a father, or calling home to talk with parents and having parents ask him what they should do, because they didn't know how to get the student to do work or get projects done. Michael also complained how hard it was to teacher kids who just continued to ask how to do the same problems we worked on the day before. He asked:

How do you give tests when half the class was absent the day before? I didn't know how to reach and teach these students. Not too many students seemed to care about their grades or work. In the beginning I was pretty discouraged about teaching in this school and questioned if I would have been better off in a different school.

When Michael started working with his mentor, he was very grateful to get some help to figure this situation out. Michael saw the help as a "life line" she offered him because he was thinking of giving up. He said:

My coach was a good listener and she had worked in the system at the middle school so she knew more about the kind of kids in the system. When she asked me where I want to start looking at strategies to change the situation, I didn't even know what to say. She suggested looking at instructional strategies to try to raise work level expectations, but I realize I needed help with just trying to figure out how to motivate these students. Behavior management was not taught in my teacher certification training and plus, these students had so many gaps in the learning about math. She started by having me figure out which students received special services like IEP's or resource help, and who worked with these students in the school. So far, I had only met the principal so helped

to get to know these resource people in the school. My coach also used a feedback form to help me think out what other questions I had about my students and who in the school could help with those questions. I started to realize how complicate teaching students with multiple needs could be. My coach said we would spend some time getting to know who my students were and how the school functioned their lives.

Michael worked on getting to know his students and environment, along with class strategies to improve homework and class participation. Working with his coach, who would script his class providing data to show him how the class attended, and debrief with Michael after an observation. Michael said, “The scripting was a good thing to help me picture of my class I did not see, and my coach help me reflect and learn from my actions.” By the end of the year, he said he had reached a skill level of an Advanced Beginner since he was starting to think about the different contexts that applied to understanding his students and how to reach them.

Learning in the Second Year Without a Mentor

All teachers stated at the time of the interviews in their second year that they at the Advanced Beginner level along the POMM. All new teachers directly and indirectly, said they could also see times and categories where their skills could be described as Competent in terms of how they were problem-solving and “picking their battles.” These new teachers midway in their second year were beginning to regard the context of a situation before they applied rules and action. The three new teachers were learning to teach mostly alone in their second year, but had begun to form supportive relationships with team or department members, and reported that the

social interaction and collaboration on same goals made them feel more a part of their schools. In their second year, there was increased sharing of lesson planning and ideas. All reported building confidence in how they managed their classrooms, delivered instruction, and won student’s respect. Their perceived growth as reported in the middle of year two is shown in Table 4 below.

POMM skills and actions T=Teacher M=Mentor	<i>Beginning of Year 1</i>	<i>End of Year 1</i>	<i>Middle of Year 2</i>
	Novice: Applies rules learned in training to guide actions without flexibility or regard for context	Advanced Beginner: Recognizes context of situations. Generates guiding maxims to deal with specific situations. Difficulty with challenges.	Competent: Develops own plan recognizing which situations are important which can be ignored. Develops own rules
T-Classroom Management	Larry Rachel Michael	Larry Rachel Michael	Larry Rachel
T-Behavior Management	Larry Rachel Michael	Larry Rachel Michael	Larry Rachel
T-Instructional Practices	Larry Rachel Michael	Larry Rachel	
T-Collegial Support	Larry Rachel Michael	Larry Rachel Michael	Larry
T-Member of school CoP			Larry Rachel
M-Use of Goal-Setting to change practice	Larry Rachel Michael	Larry Rachel Michael	Larry Rachel
M-Use of Observation and Feedback to change practice	Larry Rachel Michael	Larry Rachel Michael	
M-Use of Reflection-on-Action to change practice	Larry Rachel Michael	Larry Rachel Michael	Larry
T/M-Seeks and uses modeling to change practice	Larry Rachel Michael	Larry Rachel	Rachel

Table 4 - Teacher growth on the POMM

In his second year, Larry reported that he changed schools and joined a new team, still teaching 6th grade math. Compared to the isolation from team members experienced in Year 1, Larry was enjoying the opportunity for team planning that occurred in earnest for approximately 50 minutes each day. Larry stated:

We work together at finding solutions to student behavior issues and concerns for their instructional planning. Parents attend the meetings, special educators, guidance counselors, principals if needed, to add to the discussion on how to best manage students' causes for poor work or behavior problems. The first year I used the time to correct papers, but on this team, the time is really spent in good discussion and there is no time to correct...also, the team has a guideline about concentrating our work that period on team issues, not individual correcting. It seems more professional.

Larry also mentioned that he has two veteran teachers on the team that he can turn to for support if needed. He has enjoyed joining two teams and school-wide groups; Math Olympians and Team Treasure for the activities fund, both of which have a direct impact on student learning. A veteran teacher and Larry coach interested math students on his team and others throughout the school in math problem-solving of eight questions typical of those asked in the state competition. Larry said he has seen a positive difference in student motivation on this team and in his new school. Lave and Wenger (1991) defined joining in the workplace CoP's as part of passage to full membership in that organization. Larry reported feeling that he was close to that point in the middle of his second year.

Larry discussed how his class management practices had become part of his routine in delivery instruction. He has two math classes which are designated ESL, and contain many students who also have IEP's. A part-time resource teacher works with his classes two days a week, and he believes with the extra "hands to help" and his improved classroom management strategies, he is able to provide individual help to each student. He said he was able to prepare before school started in setting up his new room and preparing lessons, and he looked back on his lessons learned in classroom management with his Induction Coach to create this year classroom design. He managed to locate a large table where he could place a few individuals and pairs who need the most attention for math, and he also used its large space to create workstations for all students to work independently at given times. Two complications in year two cut back on the time for individual help: bigger classes and now working on computerized examples of Common Core examples to pass the state. A positive influence and hope for his future is his nomination by his principal and enrollment in a tuition-free Masters Degree Program in ESL sponsored by a local college. Teachers from urban core districts are given preference in being selected as tuition-free participants. His only complaint was, "Now I'll really have to work at my time management skills to keep up with planning lessons, correcting, and reading for my classes." Larry's level of skill is beginning to develop more as Competent on the POMM because of his confidence to seek solutions and develop his own plan that recognizes the importance of context and how different situations call for different solutions. Although he describes himself as still an Advanced Beginner, his

increasing efficacy to handle challenges characterizes his skill progress as developing into a Competent level.

In Year 2, Rachel is still in the high school science department, and she is now teaching mostly 6th grade Introduction to Science classes. Her enthusiasm for trying to catch student interest in science prevails in her continuous use of “websites with great ideas for teaching science, some of which I heard about from my Coach last year. She described overcoming some challenges in the beginning of Year 2. One challenge was to prepare lessons for her long-term substitute while she was on maternity leave from mid-semester to November and the end of the first term. Rachel stated, “I didn’t have to set up all the lesson planning but I wanted to know what my students were learning in my absence. When I returned in November, most classes were behind in where they were supposed to be....but then I wasn’t there to provide the daily instruction and correction feedback.”

Classroom management still had its challenges, mainly with organization of instruction and some off-task behaviors. She focused on finding as ways for students to visualize and conceptualize the principles of science, and she reported using some the visual organizers her coach shared with her last year. She said she still did not have the time to reflect-on-practice as she thought she should do, but she was overwhelmed at times with all the preparation and correcting she needed to do.

Rachel stated that members of the science department had caught on to her request to share ideas and plans in teaching science. She instituted “Drop box” for teachers to request ideas on certain lessons taught or science questions to support planning of thematic units. Some participation was in offering “good lessons that

worked for me.” Rachel organized the information and distributed it to interested teachers.

Rachel placed herself on the POMM as in between an Advanced Beginner and Competent levels. She had developed her understanding of how the context of a problem or situation may define its solution. Rachel continued to say, “Awareness of individual needs in a classroom management, whether its IEP needs to alternate my instruction or accommodating differences in behavioral needs say with an student with autism, I try to weigh out the situation before I take action. I’m choosing my battles, but also trying to help kids see the difference for why sometimes class rules don’t apply to everyone.”

Rachel believes with more time to reflect on her practice she would become a better teacher. She finds that she is thinking about her classes all the time and coming up with new ideas even in the supermarket reading labels on prepared foods, thinking, “What are those chemicals and how do they fit into good nutrition, how can I tie this idea into teaching the segment on biology?” Rachel’s building confidence to address challenges also places her on a Competent level on the POMM, where the learner’s goal is to increase efficacy in handling difficult situations.

Michael also remains working at the high school, teaching 9th grade math Algebra 1 to two College Prep classes and two academic classes that learn more basic skills, and a third class with many students with IEPs without a resource teacher. Michael expressed more confidence in his classroom management, particularly in behavior management. He said that he could plan early for this year’s classes and could apply what he had learned from his Induction coach about” knowing his

students.” He also said he had gone back to some principles he learned in student teaching about staying consistent with routines right from the beginning of the year. He said as an example, If you assign detention, that you have to stick to it or kids will spread the word, Mr. Jones doesn’t police that, so kids won’t show up when you assign detention, you have to be consistent with rules. In another way, you have to look at the circumstances around a student's breaking a rule. If you hear a swear word but it’s not directed at another student or me as a teacher, I would just warn someone to watch their language. You have to choose your battles.

Michael’s statement shows teaching flexibility and supports that he moved to Advanced Beginner, evidenced by his ability to see the importance of context in determining a solution to a problem. He also shared:

When you first start teaching, you care a bit more about if students like you, and as you get older and get more experience, you care less about that ... it’s not about them liking you, it’s about them respecting you, and coming into your classroom to learn.

Michael has said that this idea has helped him this year to manage his classroom and maintain respect for other students and himself. Michael currently placed himself at an Advanced Beginner because he has become “so much more aware of the situations and contexts that cause a student to come in ready to learn or cause someone to just not be able to focus on my class.” He feels he would like to grow towards Competent. He explains, “I would need to be more organized because there is so much paper work to deal with. And I’m being pulled from all these different directions. A lot of it is because of so many absences. If I plan a test for one day, but

so many kids miss the review and have trouble taking the test without help. But I'm constantly helping. Michael said that he was answering questions that he answered yesterday, only with different numbers in the examples. It's frustrating why they can't get it. I would need to learn about how to give instruction to feel Competent.

Michael did not speak of seeking any collegial support or connection in his school. He has attended district PD for establishing Professional Learning Goals and SLO learning objectives.

Summary

The POMM (Peno & Silva Mangiante, 2012) and studies that characterize acquisition of teaching skill and expertise in stages and over time, shed light on describing new teacher professional learning and provide a framework to understand how new teachers learn how to teach. The researcher has illustrated how mentors assist new teachers in developing skill in teaching by placing the goal-setting and mentor actions strategies of the POMM along side similar strategies of the Induction Coach model (NTC). Both developmental models demonstrate a process for how novices learn to teach over time (Berliner, 1988, 2004; Peno & Silva Mangiante, 2012, 2013). The POMM was employed to help describe new teachers' goal setting and problem-solving activities that were supported by a mentor. The researcher framed each stage of new teacher development with mentor support with descriptions characterizing new teachers challenges and dealing with problems they faced and the mentor actions of goal-setting, feedback, modeling, and reflection-on-practice that assisted them in finding solutions. Rich detail of those experiences portray how new teacher learning was supported by mentors' actions to progress to a higher skill level.

Goal-setting is a critical part of new teachers' focus on aspects of their practice they need to change to grow. In supporting new teacher in professional growth, the POMM describes mentors actions and counseling that support new teacher problem-solving and reflection-on-practice, that purposely guide the new teachers growth to a higher level of skill. All teachers and mentors expressed satisfaction and understanding of how the process helped new teachers grow from Novices to Advanced Beginner level and two of the three participants felt they had begun to grow in some skill areas to the Competent level in the second year of learning to teach without mentor support.

CHAPTER 5

CONCLUSION

Teaching is a complex profession, and learning to teach is lifetime work and an on-going process for all teachers. For the new teacher in a mentoring induction program, learning to teach can be seen on a continuum of experience, beginning with pre-service and student teaching, and continuing through the first few years of professional experience. Feiman-Nemser (2001) posits the early years in a classroom are an intensive and formative time in learning to teach, influencing not only whether Novices remain in teaching, but what kinds of teachers they become. The results of Peno and Silva Mangiante (2013) study of career teachers suggest strategies to support pre-service and in-service teachers in their professional growth and skills development in conjunction with use of the Purposeful, On-Going Mentoring Model (POMM) (2012). One recommendation for studying the effectiveness of in-service mentor-mentee relationships, is using the POMM to frame teacher learning and post-lesson observation sessions, to develop professional learning that is based on the needs and skill level of the new teacher. The mentoring relationship is then positioned to encourage skill development along the Novice to Expert skills model that could inform how teachers learn their craft and attain a higher skill level. The results of this study further support the notion that mentoring teachers during their induction period is important to their professional development and movement to higher levels of skill. The school district of this study employed the induction coach model of the New

Teachers Center (NTC) for mentoring and supporting its new teachers. Induction coaches were trained to guide new teacher development through building a trusting relationship of mentor/mentee to examine goals setting, needs-based observation of instruction, and formative feedback for skill development. The research employed the POMM as a tool to study the professional learning and growth experiences of three new teachers engaged in mentoring relationships guided by the NTC coaching model during their first year of professional practice. The semi-constructed interviews of three new teachers and their mentors served to describe the experiences of Novices learning to teach in an urban core school district. Interviews with their paired mentors provided the coaches' perspective on how new teachers learn as described along the POMM continuum, as well as detailing how the mentoring relationship and mentor actions supported their growth. Document examination of coaches' data-gathering and feedback tools describes the formative feedback process of mentoring to promote new teacher growth, through goals-setting and sustained professional development that is based on individual learning needs of the new teacher.

Conclusions and Recommendations

The results reveal the following conclusions and recommendations:

The study confirms the work of previous studies that purposeful, goal-oriented mentoring can support and promote new teacher learning to higher levels of skill (Peno & Silva Mangiante, 2012; Berliner, 2004). Teachers spoke of attaining a higher level of skill that rendered a greater confidence and satisfaction with their work when they received formal mentoring that was suited to their needs to grow. All new teachers spoke of the value of the supportive process of mentoring as helping them

grow in skill from Novice to the Advanced Beginner level in their first year. Two new teachers spoke of how mentoring support was the ultimate reason why they began to feel more confident with their classroom management skills and delivering instruction.

The mentoring model provides for emotional/social support and instructional guidance that promotes teacher learning and empowerment (Peno & Silva Mangiante, 2012; Feiman-Nemser, 2003; Moir, NTC, 2009; Moir, 1997). As the building block for new teacher learning and skill development, the mentoring relationship is effective when it employs purposeful, sustained professional learning that is determined by mentee needs. The NTC model for mentoring compared similarly when examining the mentors actions from the POMM: Goal-setting, reflection-on-practice, feedback and modeling revealing these tools are essential components of mentor support and the mentor relationship. All participants pointed to their mentors support for their success in learning to teach and their growing satisfaction in teaching.

New teachers seek collegial support from formal mentoring as well as other available sources of support to engage in the school community social interaction and join the CoP of the school organization (Lave & Wenger, 1991). Evidence of new teachers joining their teaching community was limited primarily to meeting with their induction coaches, all who were previous teachers from the same district, although not from the same building. With knowledge of the district social community, they offered suggestions about how newcomers could adapt to the community culture. In their first year, two out of three teachers spoke of seeking support in developing relationships with other new teachers, on the periphery of the social community or LPP (Lave & Wenger, 1991). All three new teachers spoke of isolation in their first

year and, even in one case, resistance, from being accepted into the team or department they worked on in their first year. Two of the three new teachers reported developing social connections to their department or team in their second year that were sustaining. Isolation and lack of opportunity to collaborate with faculty and school community is a leading factor in teacher dissatisfaction and new teacher attrition (Ingersoll, 2011; Smith & Ingersoll, 2004; Johnson & Birkland, 2003). Pre-service and student teaching are essential components in the success of the new teacher's induction process. As the building block for new teacher learning and skill development, the mentoring relationship is effective when it employs purposeful, sustained professional learning that is determined by new teacher needs. Especially in the early years of teaching, new teachers spoke of thinking back on lessons learned in teacher preparation and in student teaching practice, in an attempt to transition skills and knowledge to their new experience of delivering instruction. The new teachers expressed a need to learn how to teach and apply their pre-service education and training to the practical challenges in their classrooms. In this study, the teachers and their mentors reported the greatest need for new teachers to learn classroom management and strategies to increase student engagement in instruction. Once learned, the new teachers began to flourish and to experiment with strategies to enliven their classrooms with student-centered learning and projects.

New teachers learning in an urban core setting are best served by a mentoring relationship that assists the new teacher to know student needs and to know school and community culture. Although teacher attrition seems to have declined regionally with a decrease in available job openings in the Northeast, indirect evidence from teacher

interviews alludes to circumstances that there is still a high turnover in this urban core district, with teachers either moving to another school district or leaving the profession all together. New teachers reported that, in teaching in an urban district, a priority for teacher learning, especially in the first year, is to know the culture of the students, school and community, and learn how to apply that knowledge in building relationships within the school and community.

Recommendations for Future Studies

In this study, as new teachers built instructional and classroom management skill in the process of learning to teach, participants noted their confidence in teaching and their self-belief in their effectiveness as teachers grew. Particularly, teachers reported being at different levels of skill depending on the type of skill. For example, some felt like they were at the Advanced Beginner level in instruction, but at the Novice level in classroom management. This may be an issue of self-efficacy that plays a role in skill development. A future study regarding the role that self-efficacy plays in enhancing the mentoring process would be helpful in guiding mentor actions.

As Harkins (1973) proposes in *What it Means to Teach*, “the teacher makes loan of himself, like some kind of auxiliary equipment which will enable the learner to make transitions and consolidations, he could not have made otherwise...once internalized, the learner not only learns, but becomes his own teacher—and that’s how the loan is repaid” (p. 10). The reciprocal nature of teaching and learning can also relate to mentoring in the POMM, in that the mentor loans guidance through modeling techniques that bring the mentee closer to the desired understanding and performance of skills. As competence, proficiency, and expertise are gained, the learner moves

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towards autonomy in functioning independent of the model and the mentor. The gift comes in the learner as teacher passing that knowledge on to the next generation of teachers as learners.

APPENDICES

Appendix A.

The Purposeful, On-going Mentoring Model (POMM) Peno & Silva Mangiante (2012)

	Novice	Advanced Beginner	Competent	Proficient	Expert
Characteristics	<p>*Applies rules learned in training to guide their actions without flexibility *No regard for context.</p>	<p>*Recognizes the context of situations *Generates guiding maxims to deal with specific situations, *Has difficulty sensing what is important and/ or handling challenging situations.</p>	<p>*Develops own plan recognizing which situations are important and which can be ignored. *Develops own rigid, inflexible rule-making, if averse to taking risks, if lacks confidence, or if fearful of losing control.</p>	<p>*Replaces rules with situational intuition. *Still deliberates when making decisions.</p>	<p>*Reacts flexibly with intuitive practiced, understanding from hours of reflective performance. *Aware of the context and the needs of those they serve.</p>
Goal	<p>* To increase awareness of the context of situations. Examine rules as applied.</p>	<p>* To increase awareness of the relative importance of different situations.</p>	<p>* To increase efficacy in ability to handle difficult, threatening, or uncertain situations.</p>	<p>*To increase analysis of and reflection while in situations.</p>	<p>*To increase intuitive thinking to guide practice in new situations.</p>

Mentor Actions (with learner/mentee)	<ul style="list-style-type: none"> * Assist the learner in reflecting on practice. *Model an effective strategy for using a rule in a given context. *Possible feedback on the learner's construction of a new approach. 	<ul style="list-style-type: none"> *Assist learner to reflect on practice as it applied in different situations. *Model alternative approaches. *Provide feedback on the learner's construction of practice in a variety of situations. 	<ul style="list-style-type: none"> *Model strategies for continuous reflection-on-practice in typical and challenging situations. *Model self-regulation in challenging situations. *Help learner develop options with purpose of expanding possible responses. 	<ul style="list-style-type: none"> *Model strategies for continuous reflection-in-practice. *Assist learner to become self-directed in reflections in situations. *Provide regular feedback to support reflective thinking. 	<ul style="list-style-type: none"> *Assist learner to consider how they can transfer their experience to new domains. *Possible on-going opportunities for discourse regarding practice.
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Appendix B.

Letter of Informed Consent

The University of Rhode Island
School of Education
Room 603, Chafee Hall
Kingston, RI 02886
Title of Project: Mentoring Study

CONSENT FORM FOR RESEARCH

You have been invited to take part in a research project described below. You were selected as a possible participant because you have been enrolled in professional development in the district's mentoring program during the school years: 2012- 2013 and 2013- 2014. Please read this form and ask any questions that you may have before agreeing to be a participant in the study. The researcher, Marjorie Kazin-Boyce, will explain the project to you in detail. If you have more questions later, Dr. Kathy Peno, the person mainly responsible for this study (cell: 401-523-1477), will discuss them with you. You must be at least 18 years old to be in this research project.

Background Information and Description of the Project:

The purpose of this qualitative research is to describe the learning and teaching experience of teachers engaged in a mentoring program during their first years of service. The study will examine the professional development experience of mentoring from the perceptions of new teachers and mentors. The use of a skills development model, The Purposeful, On-going Mentoring Model (POMM), will be explained as a tool to describe stages in teacher professional learning.

Procedures

If you agree to be a participant in this research, you will be asked to do the following things. The study will take place during February, March, and April of 2014. This study does not involve any experimental procedures or changes to your teaching practice.

Interviews:

An interview, by researcher Marjorie Kazin-Boyce, will take approximately one-half hour and will be private. The interviews will be held at a time convenient to you during the months of February, March, and April of 2014.

Risks or discomfort:

There are no risks anticipated as a result of participation in this study.

Benefits of this study:

Although there will be no direct benefit to you for taking part in this study, the researchers may learn more about the new teacher needs for professional development and how teachers develop skill and proficiency in their first years of practice.

Confidentiality:

Your part in the study is confidential. None of the details gathered in the study will identify you by name. All records will be kept in a locked drawer with access only available to the researchers.

Your part in this study is confidential within legal limits. The researchers and the University of Rhode Island will protect your privacy, unless they are required by law to report information to city, state or federal authorities, or to give information to a court of law. Otherwise, none of the information will identify you by name or the place in which you work. All data gathered from the study site will be secured and maintained in a locked facility away from the school community.

Decision to quit at any time:

The decision to take part in this study is up to you. You do not have to participate. If you decide to take part in the study, you may quit at any time. Whatever you decide will in no way penalize you. If you wish to quit, simply inform Marjorie Kazin-Boyce at 401-330-8312 or Dr. Kathy Peno at 401-523-1477 or of your decision.

Rights and Complaints:

If you are not satisfied with the way this study is performed, you may discuss your complaints with Marjorie Kazin-Boyce at 401-330-8312 or with Dr. Kathy Peno at 401-523-1477, anonymously, if you choose. In addition, you may also call the office of the Vice President for Research, 70 Lower College Road, University of Rhode Island, Kingston, Rhode Island, telephone: (401) 874-4328.

You have read the Consent Form. Your questions have been answered. Your signature on this form means that you understand the information and you agree to participate in this study.

Signature of Participant

Signature of Researcher

Typed/printed Name

Typed/printed name

Date

Date

Please sign both consent forms, keeping one for yourself

Appendix C

Issues of Trustworthiness in a Qualitative study

	Credibility	Generalizability	Dependability	Confirmability
Member Checking	X			
Peer Debriefing	X			
Thick Description of participants and context	X	X		
Purposive Sampling	X			
Dependability Audit (documentation, field notes, etc.)			X	
Confirmability Audit				X

Appendix D

Teacher Interview Protocol

Demographic Information: Training:

Where do you study teacher education? Where was your pre-service training?

Describe your success and challenges in student teaching experience?

Where did pre-service training? _____ Support by a supervising teacher? _____

Subjects/Levels taught Year1? _____ Mentor Support? ___ Subject/Levels taught Year2?

Interview Questions

After reviewing the Novice to Expert Continuum, determined which of the five levels of skill development you attained during your first to second years of teaching:

1) Tell me about your first months in teaching in this school district, and give me a picture of what your teaching looked like then.

2) In the beginning, where would you place yourself on the POMM from Novice to Advanced Beginner to Competent to Proficient to Expert.?

3) What were some of the factors that helped you achieve that level of practice?

Who were people that supported you? What were your challenges?

4) How did your mentor help you in the start of your first year?

At the end of your first year, where would you place yourself on the POMM from Novice to Advanced Beginner to Competent to Proficient to Expert? _____

5) How do you think your practice looks different at the year's end or this higher level?

6) What were some of the factors that helped you achieve that level of practice? Who were people that supported you? What were your challenges?

7) Did your induction mentor help you change from beginning to the end of Year 1?

How did your practice change?

Describe your teaching where you are at currently in Year 2, pointing to the level you are at now on the continuum. _____

8) What subjects/ levels do you teach YR 2? Describe best practices and your classroom today.

What would be your next steps to develop your skill to the next level? What would organization of that classroom look like?

9) What are some of the factors that helped you achieve your current level of practice?

What are your supports and challenges?

How has mentoring with an induction coach helped you grow as a teacher over time?

Appendix E

Mentor Interview Protocol Procedures

- A. Explain Study Goals and their contribution to the research, IRB Policy of Confidentiality and Letter of Informed Consent
- B. Explain Purposeful Ongoing Mentoring Model (POMM)
- C. Verify the coach was assigned to the new teacher participant
- D. Use the Interview Question to prompt discussion of induction coach practices and coaching study participants to higher level of skill.

Interview Questions

- 1) Please describe how the Mentoring Induction Program (Part of Statewide Mentoring Initiative) operated in these district schools.
- 2) What elements of coaching: observation, feedback, modeling, and reflection, were applied in the coaching process?
- 3) After reading the POMM, how does the state Induction coach model compare to the POMM as a process to mentor new teachers?
- 4) Using the POMM as a guide, how would you describe the new teacher's, (skill level from Novice to Expert, when they **first began the mentoring process?** Please think about your new teacher's level of skill at the beginning of the year and describe characteristics of their skills that describe:
 - New Teacher's goal setting/process in working towards goals. (i.e. classroom management).
 - How did the new teacher determine goals and make progress toward those goals?
 - How did the teacher use feedback (i.e. forms) to work toward the goal and think about practice? How did the teacher use reflection to work toward goals? Examples?
 - How did the coaching process help the new teacher work towards a higher level of skill?
- 5) Using the POMM as a guide, how would you describe your **mentee's skill level at the end** of a year of coaching/mentoring period). Please use characteristics that describe:
 - New teacher skill in goal setting and process of working towards those goals.
 - How did the teacher make progress toward the goal?
 - How did the teacher use feedback to work toward goals? (i.e. feedback form)
 - How the teacher used reflection to work toward the goal?
 - What differences you noticed in the new teachers skill level at the end of coaching?

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- 6) To what do you as a mentor attribute your mentees' transitions in skill level over time?
 - 7) Is there any other aspect of your mentoring / coaching experience with new teacher's ?

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