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Exploring Mathematics Teacher Education Fieldwork Experiences through Storytelling

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Exploring Mathematics Teacher Education Fieldwork Experiences through Storytelling

by

Melody Jeane Elrod

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
in Curriculum and Instruction with an emphasis in
Mathematics Education
Department of Teaching and Learning
College of Education
University of South Florida

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Dedication

   This work, and all the work that came before it, is dedicated to my parents and siblings. As I come to the conclusion of my twelfth year of university work, I am aware of the sacrifices my family has made to bring me to this point. You have supported me, financially, emotionally, and intellectually. You have cheered me on, making me feel my work is meaningful and necessary. You have tolerated my bouts of seclusion when I barked "Go away!" while researching, writing, or just thinking. You have listened to me talk about my work, even when it did not relate to your own. You have put up with my insane organizational schemes and weird schedules and given me the space to work (both figuratively and literally), while never seeming too far out of reach. You never said, "Melody, get a real job". You never asked me to stop pursuing my dreams.

   And you saw all of this as my dreams. All this school, all these books, all this moving around. You saw my dreams and you let me know they were as important to you as they were to me. You told me I was making a difference and that I was a valuable and effective educator. In a million different ways, you showed me how important my dreams were to you and how much you believed I could achieve them.

   You have let me be me. Thank you. From the bottom of my heart, thank you. Without you, I cannot be me.

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The completion of this work was not a solitary task. I had many collaborators in the design, implementation, analysis, and presentation of this study. Given what I have learned from this investigation about empathy and care in collaborative endeavors, I cannot present this work without first acknowledging those collaborators.

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Dr. Jenni Wolgemuth, thank you for your influence on my identity as a researcher. When I began my doctoral program, I could not imagine myself entering into narrative research or utilizing poetic analysis. Now I cannot imagine my work without them. Your influence on my research agenda has been incalculable. Personally, you have always gone above and beyond the call of duty. When a student has Jenni Wolgemuth as her major professor, she has an advocate of selfless energy and significant influence. I am so grateful to know that you will stay in my corner in the years to come.

Drs. Eugenia Vomvoridi-Ivanovic, Samuel Eskelson, and Jennifer Jacobs, thank you for your support as committee members. I chose each of you for your flexibility of thought, ability to work collaboratively with your colleagues, and integrity as educators. You have each

exceeded those expectations and made the completion of my dissertation (and my degree) possible with your willingness to be flexible about so many things. You have added to this study by providing points of view I had not considered and challenging me to look beyond this study to the potential it has to impact our field. I am grateful to each of you for your ability to work collaboratively to improve this work.

To my participants, who I cannot name here, I cannot express the extent of my gratitude for your willingness to let me into your professional and personal lives. It is often difficult to examine ourselves and our relationships with others, but you have entered into this work with integrity and a willingness to be honest. It is your lives that make this work meaningful. It is from your lives we take our lessons. You have taught me much and I will be forever grateful for your willingness to donate your time, your experience, and your stories to further our understanding of collaborative work.

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Abstract

Throughout the history of teacher education, the final fieldwork experience has often been called the single most influential experience in teacher preparation programs (Burns, Jacobs, & Yendol-Hoppey, 2016; Feiman-Nemser & Buchmann, 1986; Parker-Katz & Bay, 2008). Though this experience has been expanded to include fieldwork experiences throughout many teacher education programs (Guyton & McIntyre, 1990), the final fieldwork experience remains the closing activity and the lasting image of teacher preparation (Feiman-Nemser & Buchmann, 1986; Rosaen & Florio-Ruane, 2008). Given its importance, though, researchers know relatively little about it. "The knowledge thus produced is akin to the quantum theory of physics; we know what goes in . . . and what comes out . . . but not what occurs in the interim" (Guyton & McIntyre, 1990, p. 524). Given the current reforms in mathematics education and mathematics teacher education (National Council for the Accreditation of Teacher Education, 2010; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), Guyton and McIntyre's observation is still relevant today.

During the final fieldwork experience, university-based and school-based mathematics educators must work together on behalf of the novice to marry university-promoted theory (especially reform-oriented theory) with the practical classroom expectations of day-to-day teaching life. Though there is much research on how this kind of work should be done and the dilemmas that have arisen during fieldwork (e.g., Knight, 2009; Loughran, 2006; Nolan & Hoover, 2004; Sergiovanni & Starratt, 2006; Sullivan & Glanz, 2013), we have little information

about the experiences of the mathematics educators who collaborate during final fieldwork. Furthermore, we have very little information on how these educators navigate mathematics reforms to prepare teachers of mathematics.

This multi-case study was designed to investigate three novices, their school-based mentors, and their university-based mentor (me) who collaborated during a year-long final fieldwork experience at the close of a middle school mathematics teacher preparation program. To write single case reports that illuminated our collaborative experiences, I wrote the "stories" of each triad. To collect these stories, I used individual and group interviews, paired conversations, asynchronous text interviews, conference observations, collaborative fieldwork artifacts, my own practitioner-researcher journal, and three cycles of participant member checks. After verifying the veracity of the stories of each triad, I engaged in cross-case analysis to make assertions about the commonalities and unique circumstances that defined these fieldwork cases. This study adds to teacher preparation fieldwork literature by evoking a response from educators working in the field and providing them with examples of open dialogue that created more empathetic collaborative experiences. The study also provides evidence that the empathy generated by sharing stories can create more productive and effective learning experiences for the novices involved. In particular, open dialogue provided the collaborators in these cases with a platform for acknowledging pedagogical differences, negotiating fieldwork expectations, and setting and meeting novices' professional goals. For future investigations of teacher preparation fieldwork collaboration, this study provides evidence that a practitioner approach to research affords the researcher exceptional access to the stories of novices and mentors and establishes empathetic bonds that can make the telling of those stories both illuminating and respectful of the voices they represent.

Chapter 1: Introduction

Statement of the Problem

Throughout the history of teacher education, the final fieldwork experience has often been called the single most influential experience in teacher preparation programs (Burns, Jacobs, & Yendol-Hoppey, 2016; Feiman-Nemser & Buchmann, 1986; Parker-Katz & Bay, 2008). Though this experience has been expanded to include fieldwork experiences throughout many teacher education programs (Guyton & McIntyre, 1990), the final fieldwork experience remains the closing activity and the lasting image of teacher preparation (Feiman-Nemser & Buchmann, 1986; Rosaen & Florio-Ruane, 2008). Given its importance, though, researchers know relatively little about it. "The knowledge thus produced is akin to the quantum theory of physics; we know what goes in . . . and what comes out . . . but not what occurs in the interim" (Guyton & McIntyre, 1990, p. 524). Given the current reforms in mathematics education and mathematics teacher education (National Council for the Accreditation of Teacher Education, 2010; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), Guyton and McIntyre's observation is still relevant today.

As we reestablish what it means to do mathematics in the classroom, we must also redefine what it means to prepare mathematics teachers (Sergiovanni & Starratt, 2006). In today's fieldwork settings, novices and mentors alike struggle with issues resulting from the divide between university-learned theory and classroom practice (Cherian, 2007; Loughran, 2006; Zeichner & Conklin, 2008), disconnects between novices' and mentors' pedagogical beliefs (Bullough & Draper, 2004; Goodwin & Oyler, 2008; Norman, 2011; Slick, 1997;

Valencia, Martin, Place, & Grossman, 2009), and insufficient professional development for mentors in the field (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Fullan, 2007; Spillane, 2002). Amid these conflicts in collaboration, it is difficult to know whether or how much novices are learning during fieldwork experiences.

During the final fieldwork experience, university-based and school-based mathematics educators must work together on behalf of the novice to marry theory (especially reform-oriented theory) with practice. Though there is much research on how this kind of work should be done and the dilemmas that have arisen during fieldwork (e.g., Knight, 2009; Loughran, 2006; Nolan & Hoover, 2004; Sergiovanni & Starratt, 2006; Sullivan & Glanz, 2013), we have little information about the experiences of the mathematics educators who collaborate during final fieldwork. Furthermore, we have very little information on how these educators navigate mathematics reforms to prepare teachers of mathematics.

Historically, policy and accreditation decisions about teacher preparation programs have been made based on primarily pretest/posttest data (e.g., whether or not undergraduates earn teaching degrees and pass certification tests) without a thorough understanding of how those decisions are manifested in the work of the educators involved (Goodwin & Oyler, 2008; Guyton & McIntyre, 1990). An in-depth look at the experiences of these mathematics educators is needed to better understand fieldwork collaborations—an understanding that has the potential to inform future decisions about teacher education fieldwork.

In the 1990 *Handbook of Research on Teacher Education*, Guyton and McGuire asserted that conventional research approaches were limited by their attention to specific variables, their inapplicability to the average student teaching setting, and their narrow data collection methods. To address these limitations, they recommended the use of a naturalistic approach, advocating

for the use of interviews, observations, recordings of conferences and seminars, descriptions of experiences, and journal writings as data for investigation. In short, they advocated for an exploratory, qualitative approach that is "concerned with understanding human behavior from actors' frames of reference" (Guyton & McIntyre, 1990, p. 529).

Abell, Dillon, Hopkens, McInerney, and O'Brien (1995) conducted research that investigated the dyadic relationship of first-year teachers with more experienced mentor teachers in the context of a first-year teacher internship. In the reporting of their findings, the researchers were careful to make the voices of the participants heard and called for more studies with a similar focus. They encouraged studies to be conducted on site over an extended period of time to better understand the development and evolution of the relationships formed. Abell et al. also raised questions about how structured the mentor roles should be. In their study, mentors and novices negotiated many facets of their relationships—the timing and purpose of observations, the format of feedback, and frequency and scheduling of meeting times—in ways that best fit their individual personalities and schedules, a method that proved useful to both. They concluded that additional research into the definition of roles would be useful in exploring role definition further.

Loughran (2006) called for a more explicit sharing of expectations and assumptions in order to facilitate clearer communication among educators.

> The importance of thinking about the interconnectedness of assumptions, beliefs and practices through adages is not an attempt to assign blame to particular positions, or to suggest that "choosing correctly" from the possibilities will resolve the tensions and dilemmas of teaching about teaching. Rather, it is to draw attention to the fact that many views of teaching and teacher education are

underpinned by assumptions that can surface in practice in ways that may inadvertently limit our intentions for, and responses to, students' learning" (2006, Chapter 2).

Rosean and Florio-Ruane (2008) also questioned the establishment of firm roles for triad members by suggesting metaphorical approaches to studying fieldwork. The authors suggested "struggling reader" and "at risk learners" as ontological metaphors for studying the experiences of teaching and teacher education. By adjusting the lens through which we study our practices, Rosean and Florio-Ruane advocated the study of experience in educational research.

At the close of their study of a cohort of nine novices and the triads they formed with their mentor educators, Valencia, Martin, Place, and Grossman (2009) noted that a more in-depth study of each triad would have been more informative as to the attributes of successful triad interactions. Likewise, in a focused study of nine novices' perceptions of their relationships with their mentors, Rhoads, Samkoff, and Weber (2013) provided some insights into the factors needed for positive novice-mentor relationships. Because their study was limited to the perceptions of the novices, however, they noted the need to collect mentor educators' perceptions as well.

The synthesis of these studies suggests that the study of fieldwork collaborations requires a naturalistic in-depth look at the experiences of each member of the triad that makes clear their assumptions and expectations in relation to one another. The study, described below, is an in-depth examination of the experiences of fieldwork triads and their members. It was designed to provide insights about the nature of these collaborations as the educators involved work to support the development of novice mathematics educators. Research reports have identified many of the difficulties experienced by triad members—disconnects in beliefs and values

(Goodwin & Oyler, 2008; Slick, 1997; Wilson, Floden, & Ferrini-Mundy, 2002), conflicts between university-endorsed educational theory and practical day-to-day classroom expectations (Bullough & Draper, 2004; Cherian, 2007; Loughran, 2006; Zeichner & Conklin, 2008), and competing demands on novices from school-based and university-based mathematics educators (Bullough & Draper, 2004; Rhoads et al., 2013; Valencia et al., 2009). What research has not yet addressed, however, are the intricacies of *being* the school mentor, the university mentor, or the novice in this final fieldwork experience. We do not understand how the experiences and roles of these educators contribute to or detract from the fieldwork experience. Without such understanding, we cannot hope to effectively improve fieldwork, a portion of teacher preparation thought to be the most influential in developing the pedagogical beliefs of new teachers.

Purpose of the Study & Research Questions

This multi-case study (Stake, 2006) examines the fieldwork collaborations of three triads with whom I worked during the 2015-2016 school year. For each triad, I served as facilitator for a single case study that examined the experiences of each participant and the collaborations among them through the exchange of stories (Carter, 1993; Shann, 2015). By *stories*, I mean the collection of experiences, perceptions, and expectations as told by each participant during interviews, reflections, and other interactions. The purpose of the study was to better understand the final fieldwork collaborations by examining several fieldwork triads as they worked together to prepare new mathematics teachers. Analyses of interview, observational, and reflective data revealed how these educators made sense of their roles both individually and within the collaborative unit. Specifically, I sought to answer the following questions.

1. What were the experiences, needs, and expectations of the novice, school mentor, and university mentor as they collaborated during the final fieldwork experience? How did these educators see their roles as members of the triad?

2. How did the novice and his/her mentors use their experiences, needs, expectations, and role perceptions to work together within the triad to create opportunities for novices to modify generalized teacher knowledge in order to apply it specific educational situations (referred to as phronesis)?

For this study, I was both researcher and participant. Specifically, I was the university mentor assigned to each triad. Because I entered the study as a participant researcher and used storytelling to share and collect data in each triad, another set of questions emerged.

- What were the implications of the purposeful sharing of stories with one another on the final fieldwork collaboration?

- How did the sharing of stories impact the way those stories were enacted?

- Did the sharing of a story provide unique opportunities for novice phronesis?

In making these implicit questions explicit, I was able to examine the ways intentional story sharing affected the collaboration. Considering the number of researchers who have found a need for greater and more equitable communication among triad members (e.g., Hiebert & Morris, 2009; Kaasila & Lauriala, 2010; Loughran, 2006; Nolan & Hoover, 2004; Veal & Rikard, 1998), I hypothesized that story sharing would positively impact the experiences of each triad member as well as the collaborations among them. By providing clearer context and rationale for the perspectives held and decisions made by triad members, I believed we could potentially develop greater empathy for one another and communicate more successfully.

Research Design

This multi-case study (Stake, 2006) investigated the experiences of the members of three triads of mathematics educators through storytelling (Carter, 1993; Shann, 2015). In each of the individual cases, I worked with my collaborators to share stories about our experiences through individual and group interviews, collaborative artifacts, and written reflections. Though each interview was guided by a set of questions, my personal relationships with the other participants fostered an open, casual feel to the data collection process. As a result, the data collection process for each case was unique and was modified to meet the unique dynamics of each triad (Stake, 2006).

In order to create single-case reports to tell the story of each triad, I utilized a variety of qualitative analysis methods. I adopted a *bricoleur* approach to analysis (Denzin & Lincoln, 2013) for each individual case, combining thematic analysis, poetic analysis, the creation of diagrams, and narrative analysis. Rather than transcribe each audio or video file and potentially lose the emotion, laughter, and inflection of the stories that were told, I engaged in multiple listenings of each interview or observation and created memos for thematic analysis. To track the placement of each memo within the data, I utilized the audio functions of Microsoft OneNote, which allows the user to connect the timing of an audio file with the text that was typed during playback.

After this initial thematic analysis, I turned to other forms of qualitative analysis to further explore the data. In one case, for example, I had difficulty discerning the experiences of a particular participant because she tended to be less forthcoming. To explore her story further, I used poetic analysis to examine our relationship and better understand the questions I had about

her experiences. I asked the participant to read this poem and react to it, which led to an additional interview and a more complete story.

At several points during single case analysis, I also asked participants to read through their stories and provide feedback. Each member of the triad participated in this member checking in three phases: after individual stories were written, after collective stories were written, and after stories about novice growth were written.

Once single case reports were completed, I used them to conduct cross-case analysis (Stake, 2006) and make assertions about fieldwork collaborations that answered the research questions. Specifically, I addressed how the experiences and roles of each participant contributed to or detracted from the success of fieldwork.

Investigator's Research Background and Interest in the Study

My personal impetus for conducting this research was borne of my experiences as a teacher educator. As a university-appointed fieldwork supervisor, I have struggled with developing and maintaining productive, collaborative relationships with the school mentors and the novices and experienced frustration when pedagogical expectations and beliefs promoted during university coursework did not align with classroom teachers' expectations in the field. My interest in fieldwork collaborations is motivated by my own experiences and my vested interest in the success of the novices. If the final fieldwork experience is the lasting impression our novices take from teacher preparation, it should be one that helps them to grow as educators.

My work as a teacher educator has provided me with a unique opportunity to study the novices and school mentors with whom I work. During the first three years of my doctoral program, I worked with preservice teachers in a middle school mathematics teacher preparation program. The purposes of this program were to draw links between content and methods courses,

to provide preservice teachers with more field experience by integrating fieldwork experiences (practicum) in the first two semesters of the program, and to extend the final fieldwork experience to a school-year-long residency (as opposed to the traditional one-semester internship). As a member of the evaluation team examining the implementation of this program, I was responsible for collecting observational data in mathematics content and pedagogy courses and analyzing observational data collected by other graduate assistants. As such, I had access to teacher preparation coursework and had a solid understanding of what was required of the teacher candidates in this particular program. As a university supervisor, I worked with novices in both the practicum and residency (yearlong internship) portions of the program, a position that gave me first-hand experience with supporting novices in the field.

Of course, these experiences also had the potential to complicate the study. To acknowledge and mediate the ability of my own perceptions of the experience to influence the data I analyzed from participants, I took the time to analyze my own perceptions, needs, and experiences during a year-long self-study of my supervisory practice. That study informed this dissertation study by allowing me to better understand my own expectations and perceptions of my supervisory role.

In particular, I was able to complete a more in-depth understanding of my own impulses as both a university mentor and as a researcher of final fieldwork collaboration. To do so, I drew from Peskin (1988), who approached this idea by suggesting that researchers make known their subjectivities and how those subjectivities might impact the researcher role. Adhering to Peshkin's advice, I provide below a reflection I wrote in the Spring 2015 semester, before embarking on this study. This reflection on the three "subjective I"s (Peshkin, 1988) I took with

me into investigations of fieldwork collaboration—the Mathematics Teacher I, the Supervisor I, and "Special Educator" I[1]—provides context for my frame of mind as I entered into this study.

The Mathematics Teacher I is invested highly in students' mathematical thinking. I want to see mathematics classrooms where students are engaged in mathematical tasks that provide them with opportunities to engage in mathematical thinking, dialogue, and problem solving. I want to see teachers who ask open-ended questions rather than closed-ended "guess what I'm thinking" kinds of questions that set very low expectations for student engagement. I want to see students at the center of knowledge construction and teachers who are willing to facilitate and let students lead the development of ideas.

In my concern for students' mathematical learning, I may make assumptions about what should or should not be happening in the classroom and in collaborative meetings among the triad. I may be distracted by direct instructional methods and miss factors of the triad experience that are crucial to understanding it.

The Supervisor I is akin to the Mathematics Teacher I, but in this persona I am interested in how the novice teacher (preservice teacher, intern, resident, etc.) is developing. I am interested in collaboration among the supervisor, collaborating

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[1] In this excerpt, it is important to note that the use of the term "Special Educator I" is not meant to imply that the collaborations I studied necessarily included individuals with special needs. Instead, it was an organically chosen term I used in this reflection to indicate the origin of my advocacy impulses.

teacher(s), and novice, where each is working towards a common goal—the development of a new mathematics teacher. Last year, my supervisor self took a hit when I realized that I knew little and had screwed up much. This year, my supervisor self is very invested in creating open, collaborative relationships within the triads in order to facilitate growth in the novice teachers.

In my reflection on my own experiences as a supervisor and my beliefs about supervision, I may make assumptions about the supervisor's experiences. Though I have spent a great deal of time studying my assumptions and experiences and will be working to bracket those perceptions [Creswell, 2013], I will have to be diligent in listening to the [participants as they relate their stories].

The Special Educator I is concerned with advocacy. As an advocate, I worry that the novice is not being given the room to grow and fail and reflect. I worry that the collaborating teacher will feel threatened by additional educators in his/her classroom. I worry that the supervisor (me) will not do a good enough job of mediating relationships in order to make the residency experience a good one. I also worry that novices will feel caught in the middle between what the university expects and what is reasonable in the classroom of his/her collaborating teacher. Because the novice has the least amount of power in this experience—he/she is at the mercy of others for grades, recommendations, guidance, etc.—I also worry that the novice will not have a voice in the relationship. I see myself as an advocate for this novice and want to make sure that the experience is one that will

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facilitate growth rather than stifle creativity. I don't want the novices to just "get

through" their residency year; I want them to thrive and milk the experience for

everything it can give them. I want them to start their first year of teaching with

tools to succeed and no bitter aftertaste.

At the heart of it, my Special Educator I is concerned with advocacy and power.

Who has the power and how is it wielded? Who is growing and who is facilitating

that growth? In my concern about power, I may miss some of the experiences of

my participants that have nothing to do with power. Or, assuming that the power

lay in certain roles, I may miss power wielded by others or a lack of power that

thwarts the one I assume holds it (Melody, 2015, researcher journal).

As a novice supervisor with the frustrations outlined in my subjective Is, it became very apparent

that as a university mentor in the field, I did not know enough about what my collaborators were

experiencing. Further, the literature I read to improve my own supervisory practice did not

provide the information needed to improve our fieldwork collaborations as a whole. Entering

into this study was meant to satisfy my need to better understand my collaborators.

A Conceptual Framework for Studying Fieldwork Collaborations

Researchers who have studied teachers and teacher education have used a number of

theories to frame their investigations. Valencia et al. (2009) used activity theory to represent the

collective nature of fieldwork, including not just the pre-service teacher, but his/her school-based

collaborating teacher, university-based supervisor, and the students in the fieldwork classroom.

Several researchers have used positioning theory and social interactionism to understand the

ways novices and their mentors negotiate the shifting power dynamics that occur as they

collaborate during fieldwork (Bullough & Draper, 2004; Kaasila & Lauriala, 2010; Rosean & Florio-Ruane, 2008). Likewise, researchers have called for a cultural approach to understanding teachers and teacher education, an approach that recognizes the interconnectedness of various players in the teaching and teacher preparation experiences (Cochran-Smith & Boston College Evidence Team, 2009; Stigler & Hiebert, 1999, 2009).

Aligned with all of these complex, interpersonal frameworks, Rosaen and Florio-Ruane (2008) suggested using an ecological metaphor for the study of "field"work, likening the relationships among the novice and mentors to the symbiotic relationships found in ecosystems. In a teacher education ecosystem, the mentor educators and novice educator work together to construct teaching knowledge. From this view, the experiences of all the members of the collaboration would be equally important because the success of one is dependent upon the success of all. "That is, if we separate these ingredients from one another or an organism from the ecology, we risk the growth of the individual and also the growth and health of the community" (Rosean & Florio-Ruane, 2008, p. 713). It is this approach that I used to build a framework for the study.

Viewing fieldwork—and in particular, fieldwork *collaborations*—through an ecological lens meaning being concerned with issues of power and agency that arise in social situations where change is necessary. As noted above, several mathematics teacher education researchers used theoretical lenses that will fit within the ecological lens (e.g. social interactionism (Kaasila & Lauriala, 2010; Rosean & Florio-Ruane, 2008), positioning theory (Bullough & Draper, 2004), situated learning (Parker-Katz & Bay, 2008)), but few have taken into consideration the ways social status or position affect one's agency within fieldwork collaborations. In particular, I

was concerned with the power provided or denied to specific members of the collaboration and the impact of those power dynamics on the workings of the group.

In their treatment of interactionist theory, Kaasila and Lauriala (2010) noted the impact of social position on one's expected involvement in meeting goals set by a social group.

> Status and role are defined on the basis of competence: The higher the status and role a member of a group has, the bigger contribution other members of the group expect he/she to have in solving the task. So the members who have a higher status are expected to be more active than the members having a lower status (2010, p. 855).

In this view, then, novices who are involved in collaborations where they have low (or no) status may view themselves as being expected to contribute to the outcomes of fieldwork to a lesser degree (or not at all), a common trend in the literature (e.g., Valencia et al., 2009; Veal & Rikard, 1998). The same comment could be made of a school-based or university-based mentor whose contributions are seen as intrusive or unimportant, cases of which have been found in the literature as well (e.g., Borko & Mayfield, 1995; Bullough & Draper, 2004; Valencia et al., 2009). Given these individualistic dilemmas within the social structure, then, status and power—and by extension the experiences of each person within the collaborative group—are central issues when studying fieldwork collaborations.
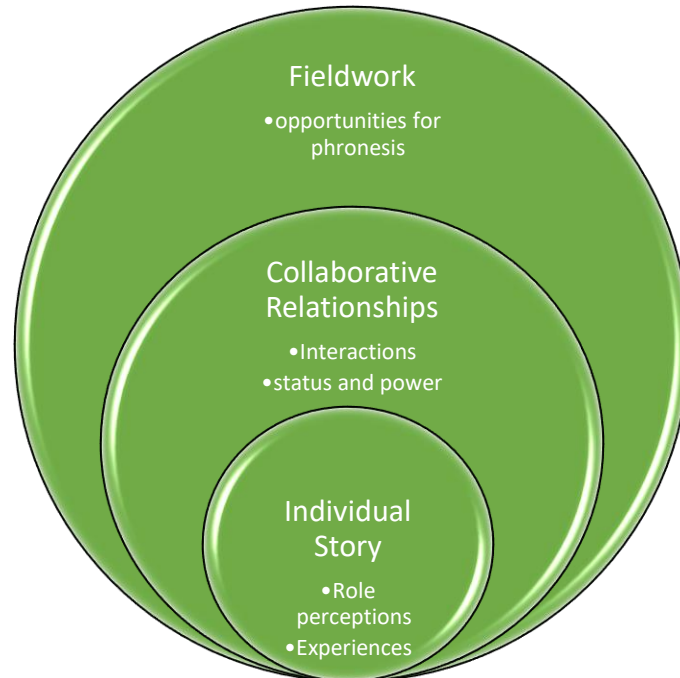
Figure 1. An ecological framework for studying fieldwork collaborations includes attention to experiences and perceptions, power and interactions, and a focus on phronesis.

Figure 1 provides a visual model of the framework I used to design the proposed study. It illustrates a three-tiered ecological model of the various relationships of field experience. In the center-most tier is attention to the stories of individual members of the triad. These stories are nested inside the collaborative relationships formed by triad members, which is illustrated by the middle layer. The outermost layer represents the setting within which the triad operates and the ways in which it influences the nature of triad relationship.

The outermost layer of the framework attends to the context of fieldwork collaborations. As such, it is necessary to provide a clear lens through which knowledge construction is viewed in the context of mathematics teacher education fieldwork. Drawing from Loughran's *Developing a Pedagogy of Teacher Education: Understanding Teaching and Learning about Teaching* (2006), I define the construction of teaching knowledge as *phronesis*, distinguishing it from *episteme*. Epistemic knowledge is knowledge that can be generalized, like specific

instructional strategies or classroom management strategies that can be applied across settings. Kagan Structures, for example, are step-by-step instructional strategies for classroom management and instructional facilitation. Another example is the set of five practices presented by Stein and Smith (2011) to orchestrate productive mathematics discussions. The knowledge of these practices is epistemic. Knowing how to apply the procedures to the situation at hand, however, is phronesis. Phronesis is developed through experiences in which epistemic knowledge is deemed insufficient. In other words, phronesis comes from experience, reflection, and intentional inquiry into one's own practices. It is this type of knowledge that should be developed through fieldwork experiences. It is the role of mentor educators to provide novices with opportunities to engage in phronesis and the role of novices to seek it out.

Significance of the Study

The final fieldwork experience is the culminating event of nearly every teacher preparation program and has an immeasurable impact on novice teachers that often overshadows or even counteracts the lessons learned in university classrooms (Feiman-Nemser & Buchmann, 1986; Franke, Kazemi, & Battey, 2007; Rosaen & Florio-Ruane, 2008; Wilson, Floden, & Ferrini-Mundy, 2002). With such an important and long-lasting outcome hanging in the balance, teacher educators have the responsibility to better understand the experiences of the educators involved. This investigation provides insights into the experiences of triad members during the final fieldwork experience and the roles each played in the preparation of a teacher of mathematics. Though novices and mentors enter the final fieldwork with individual expectations and agendas, it is necessary that each consider the perspectives, needs, and expectations of the others.

The members of the triad experience intra- and interpersonal role confusion

during student teaching, uncertainty about their own and others' roles, and

divergent role expectations of themselves and others...Three people involved in a

common experience cannot always share the same frame of reference, but

convergence, rather than divergence, can be fostered. The key is communication,

but a simplistic view of the concept will not facilitate cohesion. Student teaching

is a complex process, and one of its most abstruse components is the cognitive

complexity of the triad members (Guyton & McIntyre, 1990, p. 523).

Without attention to the complexity that arises from disparate needs, expectations, and

perspectives, educators cannot successfully design and implement an experience that best

benefits the novice educators they serve. By investigating each educator's experience and

attending to the ways these educators negotiate their relationships, this study provides insights

about the complexities of the experience.

By illuminating the experience of these three educators, both collectively and

individually, it is also my intention to evoke a reaction from novices and mentors currently in the

field and cause them to think more deeply about the needs and expectations of their fellow

collaborators. By engaging in critical thinking about one's own role and the roles of counterparts,

educators can enter into the final fieldwork experience more thoughtfully and with more

compassion.

Definition of Terms

Within the traditional fieldwork structure, novice mathematics teachers (preservice

teachers, residents, interns, etc.) are mentored by two experts: a school-based mathematics

educator (collaborating teacher, mentor teacher, etc.) and a university-based mathematics

educator (university supervisor, field supervisor, etc.). The roles of these three educators (often referred to as a triad) are defined in many ways by many programs, and sometimes not at all (Fenta, 2015; Guyton & McIntyre, 1990; Norman, 2011; Slick, 1997). Indeed, these labels have become so vague as to be meaningless (Guyton & McIntyre, 1990; Zeichner & Conklin, 2008). Rather than continue to use them throughout this proposal, I have taken the advice of Zeichner and Conklin (2008) and abandoned the traditional terms (listed parenthetically above) in favor of the positionally-constructed terms listed below. I have defined the terms "positionally" to remain true to the ecological and interactionist framework established above.

Novice Mathematics Educator (novice). A novice mathematics educator is one who has not yet completed his/her teacher education program. This novice straddles the line between student and teacher, equally responsible for (1) learning about and teaching mathematics, (2) learning about and teaching his/her pupils, and (3) learning about teaching and developing him/herself as a teacher. Because the novice is responsible for his/her own development as an equitable member of the fieldwork collaboration, he/she earns the title of educator, for he/she is in the process of educating him/herself during the final fieldwork. In other settings, this person is often referred to as the *student teacher, teacher candidate* or *preservice teacher* or, in some cases, *resident* or *intern*. In the program used as the context for this study, we used the term *resident* most often.

School-based Mathematics Educator (school mentor). A school-based mathematics educator is a teacher who teaches mathematics in a K-12 classroom setting. Though there is some debate as to whether the school mentor is also a school-based *teacher* educator, there is no doubt that this educator is very involved in the shaping of the novice (Giebelhaus & Bowman, 2002; Rhoads, Radu, & Weber, 2011; Rhoads et al., 2013; Valencia et al., 2009; Veal & Rikard,

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1998). A school mentor is sometimes referred to as a *classroom teacher*, *cooperating teacher*, *collaborating teacher*, or *mentor teacher*. In the program used as the context for this study, we used the term *collaborating teacher* most often.

University-based Mathematics Educator (university mentor). A university-based mathematics educator is a university-based teacher educator (graduate teaching assistant, instructor, or professor) assigned to support the novice in the field. The university mentor may/may not also serve in the role of university evaluator for the novice. In the literature, a university mentor might also be referred to as a *university supervisor* or *field supervisor*. In the program used as the context for this study, we used the term *supervisor* most often.

Mentor Educators (mentors). Because the university and school mentors share the trait of mentoring a novice in fieldwork experiences, they may be referred to as "mentor educators" or "mentors" as a collective.

Final Fieldwork Experience. The final fieldwork experience is the culminating experience undertaken by a novice to complete a degree and meet the requirements for certification. This experience has been referred to in the literature as *student teaching*, the *final internship experience*, and the *residency*. In the program used as the context for this study, we used the term *residency* most often.

Triad. The term triad will be used to indicate a fieldwork collaborative unit made up of a novice and his/her mentors. Though the term triad implies three people, at times the term may also refer to a novice whose fieldwork collaboration is made up of a different number of educators (i.e., multiple school mentors, multiple university mentors, or even multiple novices). For example, in this study, the Case 2 triad is made up of four people: the novice, two school mentors, and the university mentor.

Limitations, Delimitations, and Complications

A study into the experiences of three fieldwork triads serves as one piece of a large and complex picture of teacher preparation that is meant to be arouse empathy and evoke dialogue among educators in the field. The results of this study are meant to be transferrable (Carter, 1993; Stake, 2006), providing a window into the experiences of the participants in order to provide opportunities for educators to consider the needs of novices and their mentors in this most crucial portion of the teacher preparation program.

There were, of course, many complications for conducting a study like this one, as is the case with any qualitative study invested in collecting the stories of its participants. One of the most prominent complications was my own involvement as a participant-researcher. Though I did not award grades, as a representative of the university, the other participants often perceived me as holding a position of power over them. In previous experiences, I have encountered both novices and school mentors who experienced discomfort when I visited their classrooms. In the fieldwork experiences from which I drew my cases, I took steps to promote more equitable collaborative units.

In particular, I began the year by visiting each classroom to facilitate dialogue that revealed the expectations of each participant (including me) and recorded those expectations in collaborative documents that could be viewed and edited by each member of the triad. Throughout the year, I asked the novices in each triad to guide his/her goal setting to remove myself as the arbiter of the university program. Doing so helped to remove the common perception of the university mentor as the assessor and helped the school mentor view me as a partner rather than as an interloper. Upon reflection, I found that the novices, school-based mentors, and I worked together with a great deal less tension than in previous years.

Conclusion

This study provides insights into the experiences of the final fieldwork experience by studying three triads as they worked together to prepare new mathematics teachers. By positioning myself as a participant in the study, I delved deeply into the needs, expectations, and experiences of each collaborator by sharing stories, gaining perspective on the ways they made meaning of their individual roles as collaborators in a triad. In addition to their individual experiences, I explored the ways our stories intersected to form a collective understanding of the final fieldwork experience. This study adds to teacher preparation research literature by further illuminating the experiences of the educators involved in final fieldwork collaboration—a picture that has the potential to inform educators as they make decisions about duration, role definition, mentor training, and other aspects of this most influential experience.

Chapter 2: Review of the Literature

Teacher preparation fieldwork (traditionally called *student teaching*) predates Educational Psychology, the testing movement, and research on child development and teacher effectiveness (Guyton & McIntyre, 1990). In order to study fieldwork collaborations, then, it was necessary for me to consider the ways other researchers have approached the study of the fieldwork component of teacher preparation. As such, I conducted a review of the current and historical literature in an effort to answer three questions.

First, I wanted to know what fieldwork collaboration dilemmas were identified in the literature. As a university mentor, I wanted to be intentional about the way I entered into collaborative relationships with novices and their school mentors. I had already identified roadblocks to successful collaborations in my own experiences like the divide between the university-promoted educational theories and the day-to-day expectations of the classroom teacher. I had also already experienced the tensions that were created when I (as the university mentor) did not understand or respect the pedagogical approach of the school mentor. In the literature review, however, I wanted to learn from other researchers' investigations about dilemmas that could interfere with my ability to negotiate successful collaborations in my work with novices and their school mentors.

Second, I wanted to know what recommendations researchers made to improve fieldwork collaborations. By identifying best practices and recommendations for fieldwork, I wanted to establish useful and productive structures to support the novices with whom I would work while conducting my study.

Last, I was interested in the methods and perspectives that were used to study fieldwork collaborations. Just as I wanted to establish best practices for working as a university mentor during fieldwork, I was concerned with designing a study whose results would best represent my collaborators and myself. In particular, I was interested in learning what methods were used for collecting and analyzing data. I anticipated a qualitative approach to the study, but I wanted to see how other researchers had engaged with fieldwork collaborations qualitatively through conducting interviews and observations, by using artifacts, and by considering how their own experiences affect their collection and analysis of the data. Because I planned to conduct my study as a participant-researcher, I was especially interested in examining how other researchers positioned themselves with respect to both the study and to the participants. Did other researchers participate in their own studies? Were any researchers successful in completely removing themselves from their studies? How were researchers' experiences and connections to the programs they studied addressed in the research?

To gather literature to answer these questions, I conducted an ERIC (EBSCO) search with the keywords *triad*, *collaborating teacher*, *university supervisor*, *student teaching*, *fieldwork*, *final fieldwork*, *collaboration*, *mathematics teacher education*, and *teacher education* both in isolation and in various combinations. I limited my search to citations found in peer reviewed journals whose full text could be accessed. From this search, I found 88 articles and book chapters that studied teacher preparation fieldwork in the fields of mathematics education, English education, science education, physical education, special education, professional development, and teacher education.

After reviewing the abstracts of all articles and book chapters, I culled out 54 studies, literature reviews, and pedagogical texts that appeared most relevant to the study I planned to

conduct. As I read these 54 texts, I used Trello organizational software (www.trello.com) to annotate and organize the findings, recommendations, and methodologies of each. From these 54 readings, I set aside six that I found informative for teacher preparation, but not necessarily relevant to the study of fieldwork collaborations, and nine that were set in the context of fieldwork, but were not focused on collaboration. Of the remaining 39 readings, 17 studies were designed to answer questions similar to the first two research questions I established for my study:

1. What were the experiences, needs, and expectations of the novice, school mentor, and university mentor as they collaborated during the final fieldwork experience? How did these educators see their roles as members of the triad?

2. How did the novice and his/her mentors use their experiences, needs, expectations, and role perceptions to work together within the triad to create opportunities for novices to modify generalized teacher knowledge in order to apply it specific educational situations (phronesis)?

The remaining 22 readings contributed to my understanding of fieldwork collaborations by providing information about specific teacher preparation programs, establishing best practices for supervision and mentoring, and establishing a contextual frame for teacher preparation fieldwork through historical accounts and reviews of other literature.

In this chapter, I discuss the dilemmas, recommendations, and research approaches identified in my review of the literature. The first section *Fieldwork Collaboration Dilemmas*, discusses the three major difficulties in conducting fieldwork: the dilemmas that arise from reforms in education, the dilemmas that result from little/no mentor support, and the dilemmas that stem from poor negotiation of power. The second section, *Fieldwork Collaboration*

Recommendations, outlines the recommendations researchers have made for more successful collaborations during fieldwork. In general, they recommend that mentors learn to work together more effectively, that novices be given a more active role in setting and accomplishing their professional goals, and that fieldwork feedback and assessment be more purposeful and well defined. In the final section of this chapter, *Approaches to Studying Fieldwork Collaborations*, I summarize the ways researchers have collected data about fieldwork collaborations and the ways those researchers were positioned in relation to both the study and their participants.

Fieldwork Collaboration Dilemmas

Teachers, teacher educators, and educational researchers have identified a number of dilemmas that arose from the collaborations of fieldwork triads. In this section, I organize those challenges into three types of dilemmas: (1) *the dilemmas of reform and teacher change* that arose from the tension between university-endorsed pedagogical theories and practical, day-to-day classroom expectations, (2) *the dilemmas of mentor educator preparation and support* that resulted from the lack of training available to mentor educators, and (3) *the dilemmas of power* that were inevitable in collaborations that included students and multiple mentors with differing expertise.

The dilemmas of reform and teacher change. Mathematics education is experiencing change at district, state and national levels with a focus on implementing college and career ready standards spurred on by the advent of the Common Core State Standards for Mathematics (CCSSM) (National Council of Teachers of Mathematics, 2014; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), new curricula (e.g., College Board, 2015; Thompson & Usiskin, 2014), and new standardized tests such as the Smarter Balanced or Partnership for Assessment of Readiness for College and Careers (PARCC)

that aim to measure attainment of college and career standards (Partnership for Assessment of Readiness for College and Careers (PARCC), 2015; Smarter Balanced Assessment Consortium, 2015). The speed with which these changes are implemented in public school and universities, though, is very different. Though the writers of undergraduate teacher preparation coursework and curricula advocate strongly for new reform-oriented approaches (e.g., Rubenstein, Beckman, & Thompson, 2003; Van de Walle, Karp, & Bay-Williams, 2012), many classroom teachers have made only superficial changes to their practice and continue to teach in more traditional ways (Franke, Kazemi, & Battey, 2007; Spillane, 2012). This disconnect creates a number of dilemmas for fieldwork collaborations.

Theory versus practice divide. Given the very different educational experiences of the triad members, the dilemma of theory versus practice does not seem surprising. Teacher education programs that create partnerships with local schools for fieldwork placement are not always free to select ideal settings for their novices and, as a result, they cannot ensure that the setting in which and the teachers with whom novices are placed are supportive of the pedagogical approaches they recommend. In fact, Guyton and McIntyre (1990) noted that many schools do not permit or encourage their teachers to teach in a manner that is aligned with the theories taught in teacher education programs.

When university personnel are not able to strategically place novices with flexible and forward-thinking mentors, conflict is often the result. Bullough and Draper (2004) provided a particularly vivid example of this dilemma. In their work, the researchers investigated the actions of a university mentor and school mentor with conflicting agendas. In this instance, the two mentor educators, Dr. Z (university mentor) and Ms. K (school mentor), did not interact directly with one another about their differences, resulting in a very uncomfortable situation for their

novice, Allison. Dr. Z, a member of the university faculty, had a vested interest in the teaching of mathematics at that particular school because his child was one of its students. In his lesson planning work with Allison Dr. Z advocated for the inquiry-based pedagogy promoted by the university's coursework. When these lessons were observed by Ms. K, however, she disagreed with the instructional methods and insisted on more traditional direct instructional methods. Ms. K was a trusted member of the faculty, chosen by the principal as a mentor for her excellence in teaching, and her decisions were based on her experience and knowledge of her students. In reaction to Ms. K's feedback to Allison, Dr. Z addressed his concerns to the school's principal rather than negotiating expectations with Ms. K. The conflict these actions created resulted in an uncomfortable and unproductive fieldwork experience for Allison.

Cherian (2007) provided an example of the theory-practice divide between novice and school mentor. Cherian used observations and interview to capture the perceptions of six novices about their school mentors' impact on their teaching and learning. He found that although the novices were overwhelmingly positive in their remarks about their relationships with their school mentors, they did comment that there were constrictions on the mentors' willingness to venture into social justice issues or inquiry-based learning, both ideas promoted at the university level. According to the novices, their mentors were concerned with the time needed to engage students in learning for social justice or inquiry-based approaches. Due to the need to prepare students for mandated assessments, the pacing of the curriculum was well established and their school mentors did not feel comfortable altering it.

Zeichner and Conklin (2008) and Loughran (2006) discussed this dilemma as well. Zeichner and Conklin (2008) advocated for teacher education programs to expect the theory-practice dilemma and help novices and their mentors to navigate the divide, "providing them

with the intellectual tools needed to negotiate the inevitable issues associated with the disconnect between theory and practice" (p. 273, *quoting Goodlad (1990)*). Unfortunately, this type of support does not seem to be the norm. Quoting Trumbull, Loughran (2006) noted that teacher educators are often at a loss for helping teachers to implement current reforms in their practice. Assumptions that novices will automatically apply theories learned in coursework is a fallacy. The "theory-practice distinction has not worked in teacher education" (Loughran, 2006, Chapter 2). Indeed, the theory-practice distinction has created a schism in fieldwork that can be seen in another dilemma, the disconnection in beliefs and values.

Disconnect in beliefs and values between triad members. The three educators who make up the fieldwork triad often have very different perspectives on the goals of day-to-day teaching, mentoring, formal observations, and the fieldwork experience itself (Goodwin & Oyler, 2008; Guyton & McIntyre, 1990). They also represent a diverse set of experiences, beliefs about teaching and learning, and expectations for one another. These disparate perspectives can make collaborating during the fieldwork experience a very difficult endeavor.

Depending upon the point of view of the educator, the problem can be defined many ways. For example, from the perspective of the university mentor, "teacher educators are placed in the unhappy position of working with reluctant or critical collaborators who may not always uphold the same goals or assume responsibility for quality teacher preparation, even while teacher preparation cannot occur without their participation" (Goodwin & Oyler, 2008, p. 481). From this perspective, the beliefs and goals of the school mentor are the major elements of the dilemma. On the other hand, a school mentor may see things differently. "Entering the public school as an outsider, the university supervisor of the student teaching triad can be seen as a foreigner, an interloper" (Slick, 1997, p. 713). From the school mentor's point of view, however,

university mentors may be disconnected and out of touch with the everyday needs of classroom life. Worse, they disrupt that life when they enter the classroom to observe or evaluate. In this way, the beliefs and values of triad members greatly impact effectiveness of fieldwork in promoting learning and growth (Wilson et al., 2002).

The manifestation of the disconnect in beliefs and values between triad members can be found in Valencia, Martin, Place, and Grossman (2009), which examined the ways the roles of each member of nine triads affected the fieldwork experience. They found that novices generally worked separately with university and school mentors, forming two dyadic relationships rather than a cohesive triad. As a result, novices experienced continuous shifts between the belief systems of their mentor educators. "Although each person acted in good faith, according to the perceptions of his or her roles, there were significant tensions among multiple settings in which everyone participated" (p. 318). In most cases, these shifts did not result in conflict, but they also did not promote learning for the novices.

Norman (2011) provided another example of this dilemma in a study of six school mentors assigned to novices in a year-long internship. Norman facilitated nineteen study group sessions meant to support the mentors as school-based teacher educators. By analyzing the recordings of these sessions along with interview data for each mentor, Norman found that the mentors' beliefs about their planning and instruction greatly impacted the way they supported their novices. In particular, mentors spoke about what novices "should" know or be able to discern from observation. For example, one mentor reflected on her novice's difficulty in getting her class engaged in an activity due to the lack of a "hook" at the beginning of the lesson. "I mean, she should have seen that several times. So it's kind of a surprise that she jumped into the lesson like that" (2011, p. 57). From this quote and others like it, Norman concluded that school

mentors' beliefs about learning to teach sometimes made it difficult to provide novices the guidance and feedback they needed to learn because they made assumptions about the novices' previous teacher preparation experiences.

Kaasila and Lauriala (2010) collected interview, observational, and artifact data to study the experiences of four novices in an early fieldwork placement. The researchers found that novices' beliefs often influenced the ways they were able to interact with the planning and instructional tasks they were assigned. "When familiarizing themselves with a new classroom situation and with a new pedagogical culture, student teachers' earlier beliefs about themselves emerge and may end in a dialogue, even conflict, with the beliefs and practices present in the new context" (2010, p. 855). Given the nature of fieldwork as a time for change (Borko & Mayfield, 1995; Sullivan & Glanz, 2013), this finding articulates well the dilemma of beliefs and values in fieldwork. As Sullivan and Glanz (2013) note,

> There is a growing awareness that the key to successfully shifting to a collaborative educational paradigm is dependent on the degree to which we [teachers] alter our thinking patterns, belief systems, and mind-stets . . . Our belief systems are intimately connected to the language we use to articulate and communicate meanings (2013, pp. 28–29).

The novices and mentors studied by these researchers all had well established belief systems that dictated the way they interacted with ideas of teaching and learning. When confronted with the belief systems of their collaborators, however, mentors and novices alike made assumptions that impeded engagement in meaningful teacher preparation fieldwork. Without the shifts described by Sullivan and Glanz (2013), these beliefs—connected intimately to language and communication—became stumbling blocks in the fieldwork experience.

Influences on school mentor practices. The needed shifts described by Sullivan and

Glanz (2013) are crucial to the success of professional development efforts. School mentors are

often required to attend professional development trainings and implement new instructional

methods in the classroom that would make classroom practice more closely aligned with

university-endorsed educational theories. Unfortunately, these trainings are often insufficient and

do not affect lasting changes in their practices (Franke et al., 2007; Fullan, 2007; Spillane, 2002).

Several factors influence school mentors' abilities to change their practice. According to

researchers who study change theory and teacher change, professional development must be a

prolonged experience that allows teachers to practice, question, and reflect on new ideas as they

learn about them (Cooney & Shealy, 1997; Fullan, 2007; Spillane, 2002).

> While many teachers get a day or two of professional development on various
>
> topics each year, very few have the chance to study any aspect of teaching for
>
> more than two days. Most of their professional learning does not meet the
>
> threshold needed to produce strong effects on practice or student learning
>
> (Darling-Hammond et al., 2009, p. 20).

High-stakes assessments and teacher accountability also make it difficult for teachers to

justify making changes in their instructional practices. Parker-Katz and Bay (2008) conducted

focus groups with seventeen school mentors, chosen because they were considered to be strong

and effective mentors by university mentors and school principals. From analysis of focus group

data, the researchers found that even these seemingly open-minded school mentors found it

difficult to support novices they perceived as being poor educators in struggling pedagogically if

the academic advancement of their students was at risk: "I know what I want the kids to know by

the end of the year, and if I am to relinquish to somebody else to further their judgment, that's

where I have a problem with it" (2008, p. 1266). These school mentors, viewing themselves as responsible for the preparation of their students to complete the year's curriculum, could not justify making changes to instructional practices simply to satisfy the requirements of the novices' fieldwork assignments.

Other researchers reported similar findings in their studies of mentors' willingness to either change practices or allow novices to explore new practices. The school mentors investigated by Norman (2011) felt a distinct pressure to attend to the established curriculum and were resistant to new instructional practices promoted in teacher education university coursework. Rhoads, Samkoff, and Weber (2013) found that the school mentor in the triad they were studying expressed similar frustrations with the novices' desire to change instructional practices and alter the timing of curricular pacing. As another example, the novices interviewed by Cherian (2007) reported that their school mentors, who they liked very much, were reluctant to work with new instructional practices due to their emphasis on readiness for mandated year-end assessments.

Influence of the school mentor on novice phronesis. In light of all these dilemmas, it is important to note that the school mentor is often considered the most influential educator in the fieldwork triad (Borko & Mayfield, 1995; Cherian, 2007; Valencia et al., 2009; Veal & Rikard, 1998; Wilson et al., 2002). Indeed, the relationship between novice and school mentor can overshadow much of what is learned in university coursework. "Because student teaching has great personal meaning, surviving the experience and receiving praise from teachers have great affective salience. Compared with such 'hard evidence', the rhetoric of programs carries less weight with student teachers" (Feiman-Nemser & Buchmann, 1986, p. 39). Though written

nearly thirty years ago, Feiman-Nemser and Buchmann's words still represent the perceptions of many new teachers (Rosean & Florio-Ruane, 2008).

Though they are chosen for their expertise and experience, school mentors who are unwilling or unable to implement new practices or allow their novices to do so become a challenge for fieldwork collaboration. Because of the high value novices place on their relationships with school mentors, competing beliefs, values, and practices can create tensions in the novice-mentor relationship that hinders their ability to progress during fieldwork (Rhoads et al., 2013; Valencia et al., 2009; Wilson et al., 2002). This tension is particularly troublesome when novices have beliefs that are more closely aligned with those of their university mentor and coursework than those of their school mentors. "Caught among competing masters, each member of the triad can be pulled off-course, losing an opportunity to benefit personally from the student teaching experience and leaving the student teacher at risk" (Valencia et al., 2009, pp. 319–320).

The dilemmas of mentor educator preparation and support. Another type of dilemma for fieldwork collaborations are those that arise out of a lack of preparation and support for mentor educators. Though they are responsible for facilitating novice growth during fieldwork, neither school nor university mentors have traditionally received training for their roles (Allen, Perl, Goodson, & Sprouse, 2014; Guyton & McIntyre, 1990; Norman, 2011; Valencia et al., 2009; Zeichner & Conklin, 2008). Because many faculty feel pressure to do research and/or teach courses, it is common for university mentors to be recruited from the graduate assistants or adjuncts in colleges of education (Zeichner & Conklin, 2008). As a result, university mentors tend to be inexperienced and untrained transient members of teacher preparation programs (Allen et al., 2014). Likewise, school mentors are traditionally nominated by teacher leaders and administrators to serve as hosts to novices, but receive little to no training and are not generally

matched with programs or novices that best fit their school settings (Norman, 2011; Valencia et al., 2009). This lack of training and support creates a number of dilemmas for fieldwork collaboration.

Mentor Educators' roles as gatekeepers. Although they traditionally receive little to no training as teacher educators, mentor educators are often viewed as the gatekeepers of the teaching profession. It is their responsibility to facilitate the growth of the novice and prevent unprepared novices from entering the teaching profession. According to Nolan and Hoover (2004), university and school mentors have the responsibility to make decisions based on the best interests of all the potential students impacted by the novices in question. Given such a grave responsibility, the lack of mentor training and support can make it extremely difficult for novices to either meet expectations or know what expectations they are to meet.

Undefined roles for mentors. But are mentor educators gatekeepers or not? Another significant dilemma that stems from a lack of mentor training and support is the poor definition of roles for university and school mentors. According to Ganser (1996), the role of the school mentor is often loosely defined by teacher preparation programs. As a result, many school mentors must construct a definition based upon their own experiences, which "results in a wide variance of roles and activities" during fieldwork (1996, p. 284). Some school mentors see themselves as giving the novice a place to practice teaching (Borko & Mayfield, 1995); others consider themselves to be mentors of classroom management (Leatham & Peterson, 2010); and still others see it as their job to undo what was taught at the university and teach novices about the "real world" of the classroom (Veal & Rikard, 1998). This list of roles and responsibilities is by no means exhaustive.

Like the role of the school mentor, the role of the university mentor is often ill defined. University mentors often enter the classroom as foreigners or interlopers (Slick, 1997). Time allotments and work assignments for university mentors make their presence in the classroom an exception rather than the rule for everyday classroom life. In her case study of a single collaborative unit, Slick (1997) investigated the ways one university mentor defined and negotiated her roles with the other two members of the triad. Through her interviews with and observations of these triad members, Slick found that the university mentor placed a high priority on supporting novices and avoiding conflict. She also saw her role as being responsible for establishing expectations and serving as gatekeeper for the teaching profession.

Veal and Rikard (1998) studied twenty-three experienced physical education school mentors to examine their perceptions of fieldwork collaborations. By examining interview data, the researchers found that school mentors considered university mentors to be intrusive and out of touch with day-to-day teaching life. Further, they developed two triads of fieldwork collaboration—the functional triad and the institutional triad. The functional triad operated daily in the classroom was constructed hierarchically of the school mentor, the novice, and the K-12 students. This functional triad was disrupted by a new hierarchical triad of the university mentor, school mentor, and novice when the university mentor was present in the classroom. Veal and Rikard's work illustrates that regardless of the university mentor's perception of his/her own role, the perceptions of the school mentor greatly impacts fieldwork collaborations.

Fenta (2015) used survey and interview data to investigate the perceptions of 152 novices' about their roles and the roles of their mentors. Fenta found that novices that reported poor experiences were correlated in particular to those who also reported poor role accomplishment of the triad members. In other words, novices who were dissatisfied with their

fieldwork tended to be those who were unable to articulate their mentors' roles clearly.   It would

seem, then, that when school and university mentors' roles are ill-defined or when the definitions

constructed by university mentors and school mentors are not shared with one another, the result

is a disruption in fieldwork collaborations (Fenta, 2015; Norman, 2011; Slick, 1997; Veal &

Rikard, 1998).

   Lack of clarity about the intent of the field experience. Without a shared understanding

of the roles of each triad member, it is difficult for mentor educators to engage with novices

beyond a shallow level of feedback and guidance (Borko & Mayfield, 1995; Goodwin & Oyler,

2008; Slick, 1997; Valencia et al., 2009). Rather than engaging with uncomfortable or frustrating

topics, triads with ill-defined roles have a tendency to view fieldwork as a "practice makes

perfect" setting where the school mentor is responsible for providing a space for practice and the

university mentor is responsible for providing encouraging feedback to help novices be more

confident in their new role as classroom teacher (Borko & Mayfield, 1995). Borko and Mayfield

(1995), which examined four teacher candidates and the collaborations they formed with their

mentors during multiple field placements, related a lackluster story of collaboration. For the

triads formed in these placements, school and university mentors experienced a lack of

collaboration that resulted in less productive fieldwork for the novice. An identified recurring

theme was the unwillingness of mentors to engage with novices on a critical level. Instead,

mentor educators worked independently of each other with the primary focus of encouraging

novices and building their self-confidence.

   Valencia and her colleagues (2009) provided another example of the shallow mentoring

style reported by Borko and Mayfield (1995). The researchers found that school mentors in nine

triads they studied took a leadership role in mentoring, expecting novices to listen to their advice and follow up on it. University mentors, on the other hand, took a much more passive role.

> [A]ll of the supervisors were reluctant to intrude into the classroom even if it could have been helpful to the student teacher. They had the challenge of keeping peace, providing support, and "smoothing the waters" not only between student teachers and cooperating teachers but also between the university and cooperating teachers/partner schools. (Valencia et al., 2009, p. 311)

By adopting the role of peacekeeper in the triad, they served neither as advocate for the novices who wanted to challenge some of the set structures of the school mentors' classrooms, nor as a meaningful mentor to the novices during their fieldwork experiences.

Inauthentic evaluation of novices. Unsupported mentors also have difficulty discerning how novices should be assessed during fieldwork and which mentor should play the role of assessor. An example of this dilemma can be found in Slick (1997). In the investigation of a single elementary triad, Slick described the relationship between a struggling novice, Steve, and his university and school mentors, Helen and Kate, respectively. Throughout his fieldwork, Helen and Kate individually expressed great concern about Steve's ability, attitude, and maturity. Despite their concerns, however, Steve received an A grade from Helen. In her interviews with Slick, Helen expressed frustration about the lack of data she had to justify giving Steve a lower grade. Kate provided a great deal of evidence of Steve's unpreparedness, but viewed evaluation as Helen's role and did not reveal her concerns to Helen until the end of the fieldwork experience. Even in the setting of group interviews for research, Kate and Helen did not discuss these issues in one another's presence. Instead, each waited until their individual interviews to share their full stories with Slick. Because of Helen's and Kate's inabilities to discuss their

concerns about Steve openly and honestly with one another or with Steve, the fieldwork collaboration was ineffective in addressing either its guiding or gatekeeping functions. "The critical tensions in this student teaching triad evolved around issues of responsibility and the cooperating teacher's and supervisor's differing views of their roles and responsibilities" (Slick, 1997, p. 720).

The dilemma exposed by Slick, however, is not unique. Though university mentors are generally responsible for evaluative measures carried out during the final fieldwork, only fifteen percent of university mentors historically fail even one percent of the novices under their supervision (Guyton & McIntyre, 1990). A possible reason for this difficulty may be the artifacts and other evidence university mentors have to make these decisions. Goodwin and Oyler (2008) related the story of a university mentor's frustration with a novice who was unable to produce a lesson plan that met the university's standards, but received high marks from his school mentor on both lesson planning and teaching. In this case, the dilemma of undefined mentor roles compounded the dilemma of assessing novices. Because neither mentor felt it was her responsibility to address these issues with Steve, neither mentor was equipped to assess his readiness to enter the teaching profession.

This case also demonstrated the university mentor's lack of faith in the school mentor's ability to assess the novice. Later in the same work, Goodwin and Oyler (2008) commented that often the school mentor's closer, more personal relationship with the novice may cause them to "make excuses for a student teacher's lapses or lower their expectations" (p. 480). This case provides evidence of another dilemma: the formation of dyadic relationships that can be both combative and counterproductive.

Destructive dyads. An examination of the research literature also reveals examples of dyadic relationships that poison the work of the triad by placing the novice in the position of mediating between mentors. Borko and Mayfield (1995) found that the dyadic relationships formed by novices with each of their mentors eroded the opportunities for novice growth in the four triads they studied. Valencia et al (2009) studied dyads in which the novices developed separate relationships with their university and school mentors, making it necessary for them to constantly shift roles to satisfy the beliefs of their mentors. Lastly, Bullough and Draper (2004) demonstrated dyadic relationships between the novice (Allison) and her mentors (Dr. Z and Ms. K) that resulted in a very uncomfortable and unproductive fieldwork experiences for all three triad members.

The dilemmas of power negotiation. The final type of dilemma identified in the literature on fieldwork collaborations is the dilemma of power negotiation. Power dynamics impact the ways collaborators communicate and the impact they have on the group's work (Bullough & Draper, 2004; Kaasila & Lauriala, 2010; Rosean & Florio-Ruane, 2008). In fieldwork collaboration, one collaborator is a novice whose future is dependent upon the perceptions and decisions of his/her mentors. The other two fieldwork collaborators are mentors who have claims to various types of expertise—many times overlapping expertise. As such, power is an inevitable part of the fieldwork triad. Ignoring that power disparity or negotiating it poorly, however, has the potential to break down the productivity of the triad. Research on fieldwork collaborations shows that poor power negotiation can result in power struggles between school and university mentors and reduced agency for novices.

Power-struggle between the school and university mentors. In the dyadic relationships of Allison, Dr. Z, and Ms. K, the struggle for power was clear (Bullough & Draper, 2004). Both

Dr. Z and Ms. K believed that they were the best educator to advise Allison in her lesson planning and instructional strategies. Indeed, Dr. Z believed so strongly that his way was best, he spoke with the principal about his concerns, a move that both embarrassed and angered Ms. K. This struggle for power created an untenable situation for Allison, who took on the role of peacekeeper and worked to pacify both mentors.

The school mentors interviewed in Veal and Rikard (1998) exhibited their struggle for power more covertly. By reverting to the "functional triad" of school mentor, novice, and students when university supervisors were absent from the fieldwork setting, the school mentors effectively undermined the actions of university mentors they felt were "out of touch" with everyday classroom life. Though less confrontational than Dr. Z's and Ms. K's approaches, these school mentors viewed the university mentors as evaluators who were too concerned with theory and considered it their role to re-educate their novices. As the school mentors worked with the novices on a daily basis, they formed a bond against what they saw as the judgement of the university mentors. One school mentor commented, "I had to work so hard with [the novice] because of his supervising teacher; he was afraid of her. I was afraid of her too" (p. 112). This comment exemplifies the type of bond forged by school mentors that created a power disparity between school and university mentors in the fieldwork collaborations.

Power struggles between mentors are not limited to combative or undermining actions, however. Helen and Kate, the university and school mentors studied by Slick (1997), struggled in a different way. Although neither mentor formed a destructive dyad with Steve, the novice, neither accepted the responsibility for collecting data in order to assess him properly. Both mentors were hesitant to step into what each considered the other's domain, so neither did. This type of power struggle is just as culpable in the breakdown of the fieldwork triad.

Reduced agency for novices. A common theme in much of the literature is the lack of agency held by the novice in his/her triad. An excellent rationale for this dilemma is provided by Kaasila and Lauriala (2010). According to their use of *expectation state theory*,

> A member's status defines the weight given to him/her by the other members
> when decisions are made inside the group. Status and role are defined on the basis
> of competence: The higher the status and role a member of a group has, the bigger
> contribution other members of the group expect he/she to have in solving the task.
> So the members who have a higher status are expected to be more active than the
> members having a lower status (Kaasila & Lauriala, 2010, p. 855).

In many triads formed during fieldwork collaborations, novices are given the least amount of status. They do not make decisions about goals or objectives, they are subject to "surprise visits" from their university mentors that are often evaluative in nature (Veal & Rikard, 1998), and they adopt roles they believe will satisfy their mentors (Valencia et al., 2009).

In a collaborative setting where the novice naturally has the least amount of power, it can be very difficult for him/her to access the resources needed to grow professionally. When compounded by the other dilemmas described here—theory versus practice, shallow mentoring, inauthentic assessment, conflict between mentors, etc.—the novice's reduced power can reduce rich and meaningful fieldwork experiences to an exercise in frustration in which the novice is simply trying to survive.

Fieldwork Collaboration Recommendations

Researchers and teacher educators have provided recommendations to address many of the dilemmas described above. This section provides a synthesis of those suggestions and is divided into three types of recommendations for promoting the growth of novices: (1)

recommendations for school and university mentors to work together, (2) recommendations for novices to guide their own learning, and (3) recommendations for purposeful fieldwork evaluations.

Improve collaborations between school and university mentors. In order to promote an effective triad model of fieldwork collaboration, researchers have recommended that school and university mentors share information and form bonds of trust in order to better facilitate the growth of the novice. Rather than laying blame on any one member of the triad, these recommendations collectively require the effort and cooperation of both the mentor educators.

Build a shared mentorship vision. The first step in building a working relationship for fieldwork collaborations is for school and university mentors to build a shared vision for the fieldwork experience. Zeichner and Conklin (2008) suggested that a common vision of teaching and learning should permeate all coursework and field experiences. Likewise, Veal and Rikard (1998) recommended that a shared vision might be formed by "creating a context for reduced triad tensions and shared supervision . . . to speak comprehensively; to speak sincerely; to speak legitimately; and to speak truthfully" (1998, p. 116). In so doing, mentor educators can work together to create a "productive (i.e., healthy) tension for bridging the gap between the real and the ideal" (Sullivan & Glanz, 2013, p. 120).

A key element in building this shared vision is the need to share openly with one another about beliefs and values. By making these ideas explicit, school and university mentors can openly examine the beliefs that influence teaching so powerfully (Nolan & Hoover, 2004) and avoid misunderstandings about the assumptions they and their colleagues make about teaching and learning (Loughran, 2006).

Build trust and empathy among triad members. Exposing one's beliefs and assumptions about teaching and learning, however, is not possible in an environment of distrust and antipathy. In order to facilitate productive sharing, Bullough and Draper (2004) concluded that minimally, the conditions for communication include the desire to understand and to be understood as well as a commitment to the sincerity or authenticity of self presentations and the truth of statements. Each condition indicates a willingness to invest in the other, of valuing of what the other knows and has to say. "Educational leaders must foster an organizational climate marked by trust, mutual respect, and a willingness to work collaboratively to solve problems" (Nolan & Hoover, 2004, p. 5). Abell and her colleagues (1995) found this kind of mutual respect and trust to be instrumental in binding educators together to share collaborative goals. In their meta-analysis of research on fieldwork supervision, Burns, Jacobs, and Yendol-Hoppey (2016) concluded that the practices needed to build strong collaborative relationships are a readiness for analyzing one's own practice (vulnerability), an interpersonal familiarity with collaborators, a culture of trust and collegiality, and an atmosphere of caring and fidelity. Collectively, these recommendations suggest that collaborators must intentionally seek out trusting, empathetic relationships.

Provide support to help school mentors better understand reform initiatives. One way that university mentors can show empathy to their school counterparts is to provide support in understanding and implementing reform initiatives. Because school mentors are highly invested in the work they do and (at least) partially driven by the high-stakes assessments mandated for their students, school mentors require solid evidence of the effectiveness of new practices to see them as useful in their classrooms (Darling-Hammond et al., 2009; Kaasila & Lauriala, 2010; Marrongelle, Sztajn, & Smith, 2013; Nolan & Hoover, 2004). Given the need for solid evidence and long-term professional development (Darling-Hammond et al., 2009; Fullan, 2007; Spillane,

2002), university mentors can support school mentors by providing them resources, teaching

demonstrations, and opportunities to engage with and critique new instructional strategies

(Marrongelle, Sztajn, & Smith, 2013).

Allow novices to guide their own learning. Once school and university mentors are

united through a shared vision and have achieved mutual trust and empathy, they can work

together to provide opportunities for novices to guide their own learning. The recommendations

for such opportunities are grounded in the recognition of issues of power and equity within the

triad.

Provide novices greater agency in goal setting. Novices should be given greater agency

in establishing their own goals. Hiebert and Morris (2009) recommended that novices be

included in the setting of learning goals so that "the goals become urgent, daily problems for

them—problems that the prospective teachers commit to solving" (p. 480). Nolan and Hoover

(2004) expanded on this idea by suggesting that the goal of mentoring is "to empower preservice

teachers so that they assume greater personal responsibility for solving classroom dilemmas and

for making informed decisions about their practice without direct supervisory intervention" (p.

246).

An essential part of setting and revising goals is the ability to engage in deep reflection

about one's own teaching and learning. Nolan and Hoover (2004) advocated for deep reflection

as a part of formal observational cycles so that novices' reflections become an integral part of the

data to be analyzed and novices are better prepared to engage in goal setting and revision for

subsequent observations and evaluations. Likewise, Loughran (2006) valued novice reflections

and action research initiatives as an essential tool for growth and development during fieldwork.

Work with novices to set and support their goals. Because novices traditionally have the least amount of power, mentor educators must provide novices with opportunities to engage in goal setting and support them in learning to be highly reflective educators (Feiman-Nemser & Buchmann, 1986). Knight (2009) recognized the tension created by providing these types of opportunities. "The struggle between dependent and independent looms in coaches' daily interactions with novice teachers. Coaches balance providing advice with developing novice teachers' capacity to make decisions" (2009, p. 11). Engaging in these kinds of interactions with novices requires that mentor educators view growth as "intense and long term" work (Hiebert & Morris, 2009, p. 486).

This work requires mutual trust, not only between the mentor educators, but among all members of the triad (Abell et al., 1995; Cherian, 2007). Without trust, mentor educators will find it difficult to deliver useful feedback that incorporates both encouragement and critique.

In order to accomplish these goals, teacher educators must be present in the student teaching experience. This involvement includes collaborating teachers going beyond flattering evaluations and taking the initiative to address uncomfortable or unflattering issues on a day to day basis. It also includes supervisors providing a structure and a connection to the teacher education program that student teachers have experienced prior to their final internship (p. 40).

This type of collaborative work also requires opportunities for novices to express their opinions and anxieties without fear of evaluative recriminations (Cherian, 2007).

Work equitably as a triad. The ultimate goal in providing novices with greater agency in setting and monitoring their goals is to achieve equitable fieldwork collaborations.

When the process unfolds as it should, it is possible to reach what Garman (1982)

described as organic reciprocity, in which goals, leadership, expertise, respect,

and trust are shared among the participants . . . The fact that the teacher is allowed

to select specific areas of teaching on which to focus the supervision process

empowers the teacher. It also makes the supervisor accountable for collecting the

type of data that the teacher requests. Shared responsibility, trust, and mutual

vulnerability are three important characteristics of collegial relationships (Nolan

& Hoover, 2004, p. 32).

Though Nolan and Hoover were speaking specifically of the supervisor-novice relationship, their

image of "mutual vulnerability and shared power" (Nolan & Hoover, 2004, p. 32) is a useful one

for considering the goal of equitable fieldwork collaborations.

By making known their assumptions about their roles and their beliefs about teaching and

learning, triad members can forge an equitable collaboration where each educator values and

respects the needs of the others (Loughran, 2006; Veal & Rikard, 1998). Hiebert and Morris

(2009) noted two important aspects of human collaborations: "first, humans working together

can produce better solutions than humans working alone; and, second, humans work together

well if they recognize the advantages of doing so and if they genuinely respect, and seek out, the

contributions of others" (2009, p. 485).

Provide purposeful fieldwork evaluations. In many fieldwork settings, evaluative

measures are exclusive to observations by the university mentor during instruction and artifacts

completed by the novice to be submitted to the university mentor or other university

representative (e.g., Bullough & Draper, 2004; Veal & Rikard, 1998). Ambiguity in how grades

will be awarded or who is to award them cause novices undue stress in an already stress-filled

setting (Goodwin & Oyler, 2008; Slick, 1997). For this reason, researchers recommended that fieldwork evaluations be purposeful and clear to the triad as part of the shared vision of fieldwork.

Define the roles of each mentor. One factor of fieldwork that makes evaluation ambiguous is the ill-defined roles of the mentor educators (e.g., Borko & Mayfield, 1995; Ganser, 1996; Leatham & Peterson, 2010). To combat this ambiguity, it is necessary to make explicit the roles played by triad members (Slick, 1997) and negotiate those roles as the fieldwork collaboration develops (Franke et al., 2007). In suggesting that roles should be defined succinctly (Guyton & McIntyre, 1990), however, a new dilemma arises. That is, how defined should roles be? In their study of school mentors, Abell and her colleagues (1995) found that school mentors and novices were able to negotiate their roles fluidly and with great affect. Could roles that are too finely drawn inhibit the ability of collaborators to work together productively? Valencia and her colleagues (2009) recommended that the "inherent tensions among the multiple roles each member plays and the need for each person to balance them while participating simultaneously in the triad" (p. 318). This idea will be discussed further in the third section of this chapter.

Distinguish between mentoring and evaluating. Once roles are better established, it will be necessary to distinguish mentoring from evaluation. Although some triad members may view the evaluation process as frightening and the wielding of assessments as power-reducing (e.g., Abell et al., 1995; Veal & Rikard, 1998), defining the parameters of evaluation clarifies the major task of the fieldwork collaboration as growth, rather than judgement (Nolan & Hoover, 2004). Several researchers recommend approaches for conducting evaluations during field work (e.g., Knight, 2009; Nolan & Hoover, 2004; Sullivan & Glanz, 2013), but none of the

recommendations address the specific issues of *who* should conduct these evaluations. Indeed, between formative evaluations, self-evaluations, and summative evaluations, there are recommendations for all triad members to take part in the evaluation process.

Provide professional development for mentors. In order for mentor teachers to engage equitably as collaborators with their novice, school and university mentors alike will need training and support from the teacher preparation program. Formal preparation and ongoing professional development would promote a new orientation to teaching, namely a change from practical to analytic. If one is always undergoing professional development in an effort to investigate, acclimate, and assess new theories and methods, then one becomes more of an analyst than simply a practitioner (Guyton & McIntyre, 1990; Nolan & Hoover, 2004).

Make use of novices' goals in the observation process. Building on this analytic orientation to teaching, Loughran (2006) and Guyton and McIntyre (1990) advocated an inquiry approach to teacher education in which novices are encouraged to engage in practical inquiry and action research projects concerning their own instructional practice. Doing so supports the recommendations from supervisory researchers that data collection during formal observations should be linked to novices' goals and used to further the agendas they have set for their fieldwork (Knight, 2009; Nolan & Hoover, 2004; Sullivan & Glanz, 2013).

Summary of Recommendations. The recommendations for more effective fieldwork collaborations make it clear that equitable communication is essential to the development of novices. Without equitable communication, it is unlikely that mentor educators will share a vision of fieldwork that empowers novices to establish and track their goals. Likewise, equitable communication makes it possible for novices and their mentors to work together to create opportunities for novices to modify generalized teacher knowledge in order to apply it to specific

educational settings (i.e., create opportunities for *phronesis*) during formal observations and evaluations.

In the first two sections of the literature review, I have focused on what researchers found in their investigations of fieldwork collaborations and the conclusions drawn from those studies. In the next section, I will turn my attention to how researchers designed their studies to capture such data and the extent to which those designs were effective in examining the experiences of fieldwork collaborators.

Approaches to Studying Fieldwork Collaborations

In order to enter into study about fieldwork collaborations, it was useful to consider how others have studied it. In particular, it was useful to consider what aspects of others' research approaches were informative and what aspects were ineffective in adding to researchers' understanding of fieldwork collaboration. In this section of the literature review, I focus more directly on the methods and perspectives used to study fieldwork collaborations in order to connect what is known about fieldwork (the dilemmas and recommendations discussed above) to what is needed to further investigate triad collaborations.

This section will examine two distinct aspects of the research approach. First, I will examine the research design used study fieldwork collaborations, attending to both quantitative and qualitative approaches and the various data collection methods used. Next, I will consider the research perspective by considering how the participants and the researchers are represented in the data. In particular, I will examine which members of the triad are the focus of the study, which members of the triad contribute data to the study, and how the positioning of the researcher is addressed in the study.

Research design. Researchers approached the study of fieldwork collaborations both

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quantitatively and qualitatively. This bulleted list below addresses these approaches separately to capture the data collection methods used for various research designs. In the sections that follow, I summarize the way those methods were used to draw conclusions about fieldwork collaborations and comment on the gaps these approaches have left in our understanding of fieldwork collaborations.

- Quantitative/Mixed Studies
    - Self-reported survey and Questionnaire (Zheng & Webb, 2000)
    - Questionnaire with focus group (Fenta, 2015)
    - Quasi-experimental design with pretest/posttest data (Giebelhaus & Bowman, 2002; Lee et al., 2012)
- Qualitative Studies
    - Interview Studies (Abell et al., 1995; Norman, 2011; Rhoads, Radu, & Weber, 2011; Rhoads et al., 2013; Veal & Rikard, 1998)
    - Interview, observation, and artifacts
        - Narrative (Bullough & Draper, 2004; Kaasila & Lauriala, 2010; Lloyd, 2006; Norman, 2011; Slick, 1997)
        - Other (Borko & Mayfield, 1995; Cherian, 2007; Valencia et al., 2009)
    - Survey Study (Leatham & Peterson, 2010)

Quantitative/Mixed Studies. The few quantitative and mixed studies I reviewed used primarily self-reported survey and questionnaire data. These studies focused on participants' perceptions of specific aspects of fieldwork collaboration, like who is better suited to assess novices during fieldwork (Zheng & Webb, 2000), the effectiveness of various school mentor training models (Giebelhaus & Bowman, 2002), novice preparedness at the close of fieldwork

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(Lee et al., 2012), and triad role enactment (Fenta, 2015). As an approach for studying the experiences of collaborators during fieldwork, quantitative studies have very little to offer. Because the data collected must be quantifiable, quantitative approaches are ill equipped to address the complex and unique aspects of educators working together in the field.

Qualitative Studies. The majority of research on fieldwork collaborations has been approached qualitatively. Given the interpersonal nature of the experience and the complex nature of the variables involved, it is reasonable that it should be so. Indeed, in the last two editions (2nd and 3rd) of the *Handbook of Research on Teacher Education*, researchers have called for a greater focus on qualitative studies and revealed the inadequacy of pretest/posttest approaches to predict the success or failure of novices in fieldwork placements (Goodwin & Oyler, 2008; Guyton & McIntyre, 1990). In the literature I reviewed, qualitative researchers approached the study of fieldwork collaboration by conducting interviews and observations, examining novice artifacts, and utilizing open-ended surveys.

Conducting interviews is one of the most common approaches to qualitative data collection and was used in these studies to capture perceptions of members of the fieldwork triad about various aspects of collaboration. To study a phenomenon like collaboration, which is experienced over a semester or an entire school year, qualitative experts recommend semi-structured or unstructured interviews that involve very loose protocols conducted in stages (Kvale & Brinkmann, 2009; Seidman, 2006). This approach allows participants the time they need to tell their stories and gives researchers greater opportunities to establish a rapport with participants and time to reflect on participants' stories and probe for more information.

In the studies I reviewed, several researchers described their protocols as either structured (Abell et al., 1995) or semi-structured (Rhoads et al., 2011; Veal & Rikard, 1998). Other researchers, however, did not determine the type of interviews they conducted (Borko & Mayfield, 1995; Bullough & Draper, 2004; Cherian, 2007; Kaasila & Lauriala, 2010; Lloyd, 2006; Norman, 2011; Rhoads et al., 2011; Slick, 1997; Valencia et al., 2009). The number of interviews also varied from study to study. Also, though a few researchers conducted multiple interviews across the length of the study in a more narrative approach (Borko & Mayfield, 1995; Bullough & Draper, 2004; Lloyd, 2006; Slick, 1997), many researchers conducted single interviews (Abell et al., 1995; Norman, 2011; Rhoads et al., 2011; Veal & Rikard, 1998).

Another commonly used qualitative device was observation. In the studies I reviewed, researchers used observation to capture novices' instruction (Borko & Mayfield, 1995; Cherian, 2007; Kaasila & Lauriala, 2010; Lloyd, 2006; Valencia et al., 2009) and triad/dyad meetings (Borko & Mayfield, 1995; Valencia et al., 2009). Descriptions of observation protocols and statements of the researcher's role during observation were rare.

Novice artifacts were used in several studies. These artifacts generally involved the novices' university coursework (Kaasila & Lauriala, 2010; Lloyd, 2006) and/or fieldwork requirements like lesson plans, observation field notes, or notes from collaborative conferences (Bullough & Draper, 2004; Kaasila & Lauriala, 2010; Lloyd, 2006; Rhoads et al., 2013; Valencia et al., 2009). Researchers used novice artifacts to provide context for the topics discussed during interviews and observed conferences and to corroborate the data relayed through interviews and observations.

One study made use of an open-ended survey (Leatham & Peterson, 2010) to collect data from school mentors. Unfortunately, the researchers included only vague descriptions for the analysis of survey data (i.e., "standard qualitative analysis techniques").

Gaps in the research methods. The strength of qualitative research is its ability to delve deeply into ideas that are not quantifiable. Interviews, observations, and participants' artifacts offer a view of the participants' experiences that is simply not possible using quantitative methods. In order to take advantage of those methods, however, qualitative researchers must be transparent about their approach to collecting and analyzing qualitative data. Thick descriptions of data as it was collected, analyzed, and presented is necessary to allow the reader to draw conclusions independent of the researcher (Coulter & Smith, 2009).

Unfortunately, educational researchers rarely provide rich descriptions about their data collection and analysis techniques or rationales. Due to word limitations and journal requirements, researchers often choose to focus on findings and conclusions when presenting their research. In the studies I reviewed, the researchers provided general information about how they collected data and the methods they used to analyze those data, but did not establish a deeper understanding of how these data were treated.

In some cases, researchers misnamed their qualitative approach. For example, Abell, Dillon, Hopkins, McInerney, and O'Brien (1995) engaged in what they termed a phenomenological study, but conducted a single interview with each participant rather than the multiple interviews usually associated with phenomenological work (Seidman, 2006; van Manen, 1990). The researchers also used a structured interview format—as opposed to unstructured or semi-structured, as is the norm (Kvale & Brinkmann, 2009)—to address the gaps they found in previous program evaluations.

Likewise, observation protocols were rarely spelled out and the reader was left to wonder about the purpose of these observations or the observer's role in those classes or meetings. For example, several researchers included observations of instruction as a form of data collection (Borko & Mayfield, 1995; Cherian, 2007; Kaasila & Lauriala, 2010; Lloyd, 2006; Valencia et al., 2009), but there is no indication as to what, specifically, was being observed during instruction or what the researcher's role was during class. This oversight is not uncommon in education literature. Indeed, it is not uncommon in the way that school and university mentors talk about the work they do with novices. Like the recommendation for more structured and purposeful observations during fieldwork (Nolan & Hoover, 2004; Sergiovanni & Starratt, 2006; Sullivan & Glanz, 2013), observations used for data collection in educational research should be both structured and purposeful, answering the following questions.

- Who is being observed?

- What is the setting?

- What is the purpose of the observation?

- What is the observer looking for?

- What kind of relationship does the observer have to the participant?

- Is the observation part of an evaluation?

- Did the observed person have prior knowledge of the observation?

- How is data being collected during the observation?

- Will the observed person have access to that data?

These questions must be answered to make clear the reason for the observation and its place within the research study.

Several of the studies I reviewed were concerned specifically with telling the story of one or more members of the fieldwork triad (Bullough & Draper, 2004; Kaasila & Lauriala, 2010; Lloyd, 2006; Norman, 2011; Slick, 1997). Each of these studies called their participants by name (pseudonyms) and constructed a story of the experience that helped the reader understand how the experience unfolded. In the context of studying the experiences of these participants, though, I noticed one other missing piece of data: spontaneous/organic contributions from the participants. In each of these studies, participants only contributed to the story as the researcher allowed. Researchers designed the studies, created the questions, set up the interviews and observations, chose the artifacts, etc. Though they told the stories of these novices and their mentors, these researchers controlled the flow of information.

This power imbalance reminds me that "one of the key questions about research is the political one: Who owns the knowledge, and thus who can define the reality?" (Reason, 1994, p. 325). In the section that follows, I unpack this idea by focusing my review of the research methods on the perspectives represented by the researchers' published works.

Research perspectives. In this subsection, I will revisit much of the literature reviewed above, but with a focus on the research perspective taken. I include this subsection in an effort to better understand the power dynamics at play in the research of fieldwork collaborations (Fine, 1994; Reason, 1994). Considering the amount of detail given previously, these studies are presented in a table that identifies the perspective of both the researcher(s) and the participant(s) (see Table 1). Below the table is a discussion of its contents and additional study-specific information that adds to the review of perspective and power within the literature.

Table 1

Research Perspectives of Fieldwork Collaboration Studies

Study	Population	Participants	Role of the Researcher	Researcher-Participant Relationship	Study Approach
Feiman-Nemser and Buchmann (1986)	N	2 Ns	researcher only	research only	interview and observation
Abell, Dillon, Hopkins, McInerney, and O'Brien (1995)	Dyad: N-S	8 dyads: 9 Ss and 8 Ns	researchers only	Researchers were studying a state program not directly monitored by their university	interviews
Borko and Mayfield (1995)	Triad	4 triads: Ns and mentors	no information provided	no information provided	interviews and observations
Slick (1997)	Triad	1 triad: N, S, U	no information provided	no information provided	interview
Veal and Rikard (1998)	S	23 Ss	Us	collegial, researchers used surrogate interviewers	interview
Zheng and Webb (2000)	S-U	74 Ss and Us	no information provided	no information provided	survey
Bullough and Draper (2004)	Triad	1 triad: N, S, U	no information provided	no information provided	interview
Lloyd (2006)	N	1 N	U; coursework instructor	U and coursework instructor	narrative
Cherian (2007)	Dyad: N-S	6 Ns	U	Unclear: researcher describes himself as both a U and as a researcher studying participants being supervised by other Us	interviews and observations
Parker-Katz & Bay (2008)	S	17 Ss	Us	no information provided	focus group
Valencia, Martin, Place, & Grossman (2009)	Triad	9 Ns	Us	researchers divided the fieldwork in a way that prevented Us from studying their own Ns.	interview and observation
Kaasila and Lauriala (2010)	N	4 Ns	no information provided	no information provided	narrative
Leatham and Peterson (2010)	S	45 Ss	no information provided	no information provided	survey
Rhoads, Radu, and Weber (2011)	Triad	9 Ns	no information provided	no information provided	interview
Norman (2011)	S	6 Ss	U	U collaborated with Ss and facilitated study sessions	design experiment
Rhoads, Samkoff, and Weber (2013)	Dyad: N-S	1 triad: N, S, U	no information provided	no information provided	interview
Fenta (2015)	N (Triad)	152 Ns	no information provided	no relationship inferred: university affiliation different from university studied	survey

Key: N – novice; S – school mentor; U – university mentor

Researcher-participant relationships. Because of the power dynamics inherent in fieldwork collaboration (Bullough & Draper, 2004; Kaasila & Lauriala, 2010; Rosean & Florio-Ruane, 2008), the researcher's perspective in studying such a phenomenon has the potential to impact the data collected and how it is interpreted. Many of the fieldwork studies I reviewed, for example, were conducted by university personnel who coordinate or direct the programs in which the novices were enrolled. Other triads were studied by university professors or supervisors who were ultimately responsible for awarding grades to the participants. In these cases, the reader must wonder about how forthcoming participants were about their experiences, especially if those experiences might reflect badly on the researcher interviewing them. In this section, I will address specific details of the researcher-participant relationships created by the perspectives established by the studies.

Table 1 is a summary of the perspectives of the researchers and participants involved in fieldwork collaboration studies. I included only studies that investigated the experiences of triad members and gathered data about the aspects of the studies listed below. To gather this data, I read the articles, looked for footnotes about the authors' possible relationships to the triad member(s) in their studies, and checked university websites to better understand the roles of university-affiliated researchers.

- Population: What portion(s) of the triad were being studied?

- Participants: What roles did the participant(s) play in the triad?

- Role of the Researcher: What role did the researcher(s) play in the triad?

- Researcher-Participant Relationship: Did the study provide information about potential connections between researchers and participants? If so, what was the relationship disclosed?

- Study Approach: What methods were used to collect data from participants?

Two studies, Abel et al. (1995) and Feiman-Nemser and Buchmann (1986), identified the researchers as being disconnected from the participants in their studies. In these cases, the researchers were studying situations removed from their own work, meaning that though they established interpersonal relationships with their participants through interviews and observations, they do not hold any evaluative sway over them.

Other researchers outlined their relationships to the participants and made specific design decisions meant to reduce any influence they might have in the data collection process. For example, Valencia, Martin, Place and Grossman (2009) identified themselves as university mentors in the program from which their novice participants were drawn. Mindful of the conflict of interest that can arise from studying one's own students, individual members of the research team intentionally selected cases to study where novices had been taught by other instructors. Likewise, Veal and Rikard (1998) identified the researchers as university mentors in the same program, having formed professional relationships with many of their school mentor participants. As such, they made the decision to not conduct interviews directly.

For still other researchers, closer, more intimate relationships were identified. Lloyd (2006) identified the researcher as the university mentor and coursework instructor for her novice participant, Todd. In her discussion of her work, Lloyd recognized that her association with Todd may have colored his responses to interview questions or his actions during observations. In a similar manner, Norman (2011) studied the study session collaborations of six school mentors in a design study where the researcher was also the university mentor facilitating the school mentors' sessions. Though Norman provided detailed contextual information about

her involvement in the program she was studying, she did not directly address the way her involvement may have influenced the participants' actions or responses.

In the case of Cherian (2007), the relationship is less clear. Cherian did not identify his role in the novices' teacher preparation programs, but his descriptions of observations provide conflicting evidence of his possible involvement as a university mentor:

> During visitations, I was at times an observer (*practicum supervisor observing lessons and providing feedback*) as well as a participant (I was often encouraged by [novices] to participate in class activities with their pupils). . . . *All participants in the study were supervised by another faculty* allowing me to interact with associate teachers and teacher candidates, free from ethical issues associated with supervising and researching one's own students (Cherian, 2007, p. 31, *emphasis added*).

The remainder of the researchers provided no information about researcher-participant relationships. Although all researchers were identified by their respective journals as being affiliated with universities (and most listed a university-specific email address), no information was provided by these researchers about their positions within those universities or how they were positioned with respect to the participants they studied.

Whose story is it? In the study of human experiences, researchers hold a great deal of power over how the stories of participants are told (Carter, 1993; Fine, 1994; Reason, 1994). As such, educational researchers must approach fieldwork collaboration research with the question, "Whose story is being told?" Looking across the second and third columns of each study in Table 1, we can quickly see the alignment or misalignment of each researcher's focus and participants. Note that many of the studies are closely aligned—novices studied in a novice-

focused study, triads studied in a triad-focused study, etc. There are a few cases, however, for which there appears to be a disconnection between the focus of the study and the approach used to conduct the study. For example, Cherian (2007) stated an intention to study the relationship between novices and their school mentors, but chose to interview only the novices. Fenta (2015) designed a survey to assess the role accomplishment of triad members, but asked only novices to respond. Likewise, Valencia et al. (2009) and Rhoads, Radu, and Weber (2011) drew conclusions about triad experiences as a whole, but only novices were interviewed and observed. In each of these cases, the story being told is not necessarily represented by the actors in that story.

An element of storytelling related to power that is not addressed by Table 1 is the way qualitative data were used to represent the participants and draw conclusions about the fieldwork experiences being studied. In most qualitative studies, excerpts from participant responses were used to support the findings presented. In many of the qualitative studies listed in Table 1, these excerpts were the result of probing during interviews. For example, Slick (1997) used specific quotes to tell the story of Steve's fieldwork collaborations with Kate and Helen. Likewise, Bullough and Draper (2004) recalled Dr. Z's and Ms. K's words in relaying the experiences of their triad. For both of these studies, the excerpts used provided special insight into the experiences and perspectives of the storytellers.

Other researchers, however, used excerpts in a way that provided less illumination. An example of possibly misleading representation was found in Rhoads, Radu, and Weber (2011). In this study, the researchers drew conclusions about mentoring relationships by using vague statements made by novices as evidence of other triad members' perceptions or actions. For

example, the following excerpt was used to illustrate "personally hurtful" comments received from a university mentor.

> ST5: She was very critical of me, and she discouraged me in a lot of ways.
> . . . You know, it's after talking with her that I would just be discouraged
> completely. I seriously started out student teaching really just so confident,
> . . . and every time she would see me, I would just be like, 'I shouldn't
> even be teaching.' (Rhoads et al., 2011, p. 1018).

This excerpt provided little information about the university mentors' perspective or experiences in relation to the novice, telling an unbalanced and possibly misleading story. For example, it is not possible to tell from this excerpt whether or not the university mentor had attempted to approach the novice's shortcomings in a kinder manner, if the novice had a history of reacting badly to criticism, or what kind of relationship had been negotiated among the novice and her mentors. Of course, this novice's frustration may have been completely justified, but without any attempt to understand the experiences of this triad from the perspective of the university or school mentor, the power imbalance in this study is left unresolved.

In order to resolve issues like the one found in Rhoads et al. (2011), researchers must seek out the intersections of these stories. Rather than gathering data from a single collaborator, researchers can only gain a clearer picture of fieldwork collaborations by seeking to understand the perceptions of all the collaborators involved in the work.

Conclusion

In this chapter, I have provided a review of the literature on fieldwork collaborations. By outlining the dilemmas and recommendations found in the literature, I created a context for the study I conducted. I also reviewed the ways researchers approached the study of fieldwork

collaborations in order to better understand the approaches and perspectives taken in doing so. In attending to both context and method, I was also able to set expectations for further study of this topic.

In particular, research designed to investigate final fieldwork collaborations should strive to collect stories from individual triad members, giving voice to all the educators involved. As evidenced by the comparison between the target populations and participants in Table 1, the literature is lacking in research designs that engage all members of the triad in studying the triad. Further, researchers should enter into these investigations in a manner that is transparent to the reader and allows the reader to draw conclusions that are separate from the researcher. Thus far, the few studies that have attended to the individual experiences of triad members (e.g., Borko & Mayfield, 1995; Bullough & Draper, 2004) have told the stories of these participants with too little room for interpretation. Researchers should also seek to understand the ways individual stories intersect to create the collaborative whole: How do individual role perceptions impact decision making and opportunities for phronesis? Do dyadic relationships impact the effectiveness of the triad? Table 1 also illustrates the lack of studies that attend to both the individual and collaborative experiences of triad members. Lastly, researchers should design studies that live within fieldwork contexts over extended periods of time in order to collect data about the relationships negotiated throughout fieldwork. This last conclusion is especially important due to the personal, day-to-day nature of teaching and fieldwork collaboration. It is rare for researchers to be able to enter into the kind of day-to-day investigation necessary to capture the intricate relationships formed during this complex and personal part of teacher preparation.

Chapter 3: Method

In this chapter I describe the methods I used to investigate the experiences of three triads of mathematics educators involved in a final fieldwork experience. After a brief statement of the study purpose and research questions, I discuss the conceptual framework and pilot study that have guided the design of the study. Next, I describe the research design and its rationale. In the sections that follow, I outline the study context, case selection, data collection, data analysis, and presentation of findings for the study. The chapter closes by attending to issues of ethics, credibility, trustworthiness, and generalizability.

Purpose of the Study and Research Questions

This multi-case study (Stake, 2006) examines the fieldwork collaborations of three triads with whom I worked during the 2015-2016 school year. For each triad, I acted as facilitator for a single case study that examined the experiences of each participant and the collaborations among them through the exchange of stories (Carter, 1993; Shann, 2015). The purpose of the study was to better understand the final fieldwork collaborations by examining several fieldwork triads as they worked together to prepare new mathematics teachers. Analyses of interview, observational, and reflective data revealed how these educators made sense of their roles both individually and within the collaborative unit. Specifically, I sought to answer the following questions.

1. What were the experiences, needs, and expectations of the novice, school mentor, and university mentor as they collaborated during the final fieldwork experience? How did these educators see their roles as members of the triad?

2. How did the novice and his/her mentors use their experiences, needs, expectations, and role perceptions to work together within the triad to create opportunities for novice phronesis?

For this study, I was both researcher and participant. Specifically, I was the university mentor assigned to each triad. Because I entered the study as a participant researcher and used storytelling to share and collect data in each triad, another set of questions emerged.

- What were the implications of the purposeful sharing of stories with one another on the final fieldwork collaboration?

- How did the sharing of stories impact the way those stories were enacted?

- Did the sharing of a story provide unique opportunities for novice phronesis?

In making these implicit questions explicit, I examined the ways intentional story sharing affected the collaboration. Considering the number of researchers who found a need for greater and more equitable communication among triad members (e.g., Hiebert & Morris, 2009; Kaasila & Lauriala, 2010; Loughran, 2006; Nolan & Hoover, 2004; Veal & Rikard, 1998), I hypothesized that story sharing would positively impact the experiences of each triad member as well as the collaborations among them. By providing clearer context and rationale for the perspectives held and decisions made by triad members, I believed we could potentially develop greater empathy for one another and communicate more successfully.

Connecting to the Conceptual Framework

The framework for studying fieldwork collaborations is illustrated in the three-tiered ecological model below (see Figure 2). In the center-most tier is attention to the stories of individual members of the triad. These stories were nested inside the collaborative relationships formed by triad members. In the middle layer, the interactions of triad members were studied,

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with special consideration for issues of status and power. The outermost layer is the setting within which the triad operates and includes a deep understanding of the opportunities provided for novices' phronesis (the ability to modify generalized teacher knowledge and apply it to specific educational situations). In the subsections that follow, I will unpack the way the literature has guided the design of the proposed study through each of these layers.
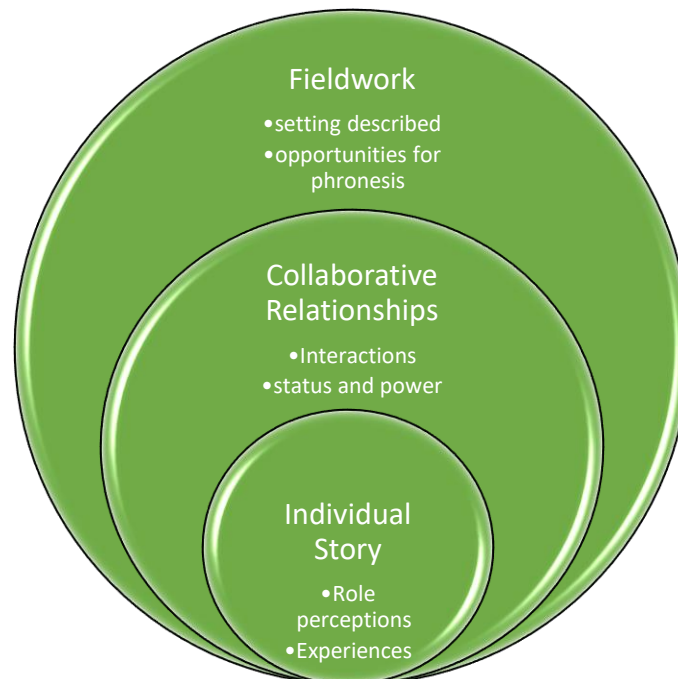
Figure 2. An ecological framework is useful for studying fieldwork collaborations

Individual story. The innermost level of the framework concerns the individual. As noted in the literature, collaborations are made up of individuals with diverse and sometimes conflicting agendas (Goodwin & Oyler, 2008) that originate from the experiences, needs, and assumptions about teaching and learning (Loughran, 2006; Nolan & Hoover, 2004; Sullivan & Glanz, 2013). As such, the work of understanding and promoting productive triads should begin with better understanding each of the triad members with whom I will work.

Experiences. Investigations of fieldwork collaborations should intentionally gather data about the experiences of novices and mentors (Guyton & McIntyre, 1990; Rosean & Florio-

Ruane, 2008; Valencia et al., 2009). To answer this call in my investigation, I created

opportunities for participants to tell their stories (Carter, 1993; Clandinin & Connelly, 1996) by

conducting individual and group interviews and listened to those stories without judgement

(Seidman, 2006; van Manen, 1990). Because researchers should work to include all voices in the

study (Rhoads et al., 2011; Zeichner & Conklin, 2008), as I gathered stories from my

collaborators, I was aware that my own voice would permeate the interpretation of the stories.

As such, I provided my colleagues the opportunity to review, edit, and even reject the stories I

developed in order to authentically tell stories of our collective experiences (Fine, 1994; Reason,

1994).

As I read fieldwork collaboration literature, I was concerned by the fact that many

researchers did not identify their own perspectives as members of the teacher education

community (e.g., Borko & Mayfield, 1995; Cherian, 2007; Leatham & Peterson, 2010; Rhoads et

al., 2013). In so doing, they removed an essential element to understanding how the collected

data and the conclusions drawn fit into the wider understanding of fieldwork. To resolve this

tension, I was careful to reveal to the readers and to my participants my own background as it

relates to fieldwork collaborations. I have embraced my own role as both participant and

researcher and accepted the inherent subjectivities that come with that dual role by making my

subjectivities known in both the pilot study and this dissertation study.

    Role Perceptions. In the study of these fieldwork collaborations, it was also necessary to

have participants define their own roles. Though the program in which my collaborators and I

worked defined some of the triad roles through requirements, reporting, and labels, the roles that

we negotiated were subject to the perceptions of each individual (Abell et al., 1995). Along with

the perceptions each individual had about his/her own role, I also gathered data about each person's perceptions of others' roles (Rhoads et al., 2013).

Collaborative relationships. The middle layer of the framework addresses the collaborative relationships formed by the individuals studied in the innermost layer. By investigating the experiences and perceptions of individual members of the collaborative triad, I was able to better understand the collaborative relationships among us. To use Rosean and Florio-Ruane's ecological metaphor (2008), once I understood the make-up and needs of each individual organism, I could better understand the way those organisms relied upon one another.

Interactions. The first step to understanding this level of the fieldwork collaboration was to explore the ways triad members interacted with one another (Guyton & McIntyre, 1990; Rosean & Florio-Ruane, 2008; Valencia et al., 2009). In gathering this data, I created a time frame that allowed for data collection over an evolutionary period of time—the entire school year (Abell et al., 1995; Rosean & Florio-Ruane, 2008). Like the extended observations and interviews conducted by researchers like Borko and Mayfield (1995) and Valencia et al. (2009), I had extended exposure to the triads I studied in order to gather information about the ways that triad relationships were formed and the ways they were negotiated throughout fieldwork.

Status and power. Another facet of collaboration that was better revealed with an extended time frame was the issue of power negotiation within the triads. This issue was important at two levels of the research. First, in order to understand the role each member played in fieldwork collaborations, it was essential to understand the power structures that were created—either explicitly or implicitly—within the triad (Kaasila & Lauriala, 2010). Second, as a researchers, I already had power over the other participants. It was imperative for me to be

aware of and sensitive to issues of power as I collected, analyzed, and retold the stories of my colleagues (Carter, 1993; Fine, 1994; Peshkin, 1988; Reason, 1994).

In order to collect data that was sensitive to issues of power and status, I incorporated tools like fictional narratives (Carter, 1993; Clandinin & Connelly, 1996; Lloyd, 2006), paired conversations (Bullough & Draper, 2004), and I involved participants in the verification of my analyses through multiple phases of member checking (Norman, 2011; Rhoads et al., 2013; Veal & Rikard, 1998).

I was also intentional about using pseudonyms for the other participants. Consider, for example, the stories told by Bullough and Draper (2004) and Slick (1997). In Bullough and Draper's telling of the story of Allison, Ms. K, and Dr. Z, they used very different kinds of labels for all three participants. Allison, who has the least amount of agency, was called by her first (pseudo)name. Her mentors, on the other hand were addressed more formally. Indeed, Dr. Z's achievement of PhD status did not go unrecognized, even in this short moniker. On the other hand, Slick introduced Steve, Kate, and Helen with first and last (pseudo)names and roles. The rest of the story, however, was told using first names only, meaning that without the parenthetical identifiers of novice, school mentor, or university mentor, we could not tell the difference between the three. As a reader, I was left wondering if the labeling in these studies was purposeful or simply indicative of the ways the authors thought about their participants. In designing my research, I decided to follow the example of Slick's use of equitable pseudonyms because it best represented the way that I attempted to create more equitable collaborations by utilizing first names (rather than formal Ms. or Mr. for the school mentors or myself) throughout our fieldwork.

Fieldwork. The last layer of studying fieldwork collaborations was to better understand

the context in which triads are placed. Using Rosean and Florio-Ruane's ecological metaphor (2008) again, the study of ecology includes the study of the ecosystem.

      Opportunities for phronesis. Represented by this outermost layer of study into effective fieldwork collaborations, I investigated the extent to which novices were given opportunities to engage in phronesis. In other words, I sought to examine the opportunities provided to the novices to use the generalized teacher knowledge they had gained in their university programs and modify it to fit the needs of specific educational situations. To do so, I analyzed the data from both individual and collective sources to find opportunities for novices to engage in self-reflection (Loughran, 2006; Nolan & Hoover, 2004), goal setting (Hiebert & Morris, 2009), self-assessment (Loughran, 2006; Sullivan & Glanz, 2013), collaboration with their peers (Sullivan & Glanz, 2013), and negotiating relationships with their peers (Sergiovanni & Starratt, 2006; Sullivan & Glanz, 2013).

      Setting. In order to capture such opportunities, I also gathered data about the setting in which each triad was placed. I provided contextual information about the school, physical space, timeframe, program requirements, and other aspects of the fieldwork placmenets (Loughran, 2006; Rosean & Florio-Ruane, 2008).

Pilot Study & Ramifications

      The design of study was also informed by a prior investigation into my own supervisory practices to improve my supervision and to investigate my communications and relationships as a supervisor assigned to five novices and their school mentors. This self-investigation provided rich reflexive opportunities to examine my own perspectives on mathematics teaching and teacher education, to consider the way these perspectives impacted my interactions with the

novices and mentors with whom I was working, and to explore qualitative methods for data collection and analysis that could more authentically represent my experiences.

One of the results of the pilot study was the development of the "subjective Is" (Peshkin, 1988). Through this exercise, I was able to identify the distinct aspects of myself (the Mathematics Educator I, the Supervisor I, and the Special Educator I) that contributed to my understanding of fieldwork collaborations and the ways that those portions of myself might impact the study I conducted. For example, the Special Educator I was primarily an advocate for individuals without power or agency. Though this portion of myself caused me to be tuned to power issues that arise in fieldwork collaborations, I was also aware of the prejudice it might have engendered against mentor educators who have traditionally held positions of power.[2]

By identifying these subjectivities and recognizing the potential for evolving subjectivities throughout the study, I was also able to indulge in the naval-gazing that can often be the result of participating in one's own research. After spending a full year examining my own practice, I was better equipped to turn my gaze outward to the experiences, needs, and expectations of my colleagues in this experience (Loughran, 2006). Indeed, once I had investigated the responsibilities of supervision, I was a more effective supervisor to the novices with whom I worked during this study. I was able to focus wholly on their needs as they progressed through their fieldwork requirements and responsibilities. This ability to focus outward served me well as a participant researcher in the study.

Another outcome of the pilot study was the experience I gained working with new methods of qualitative data collection and analysis. Specifically, I used text data from emails, text messages, and novice artifacts to study the communications between myself and my

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[2] The full text of these subjectivities is found in Chapter 1 (Investigator's Research Background and Interest in the Study).

collaborators (novices and school mentors). By gathering this data, I was able to examine the ways we communicated with each other, the impetus for those communications, and my own reactions to those communications (via my researcher journal). I analyzed this data by coding it and identifying themes in the type of communication (scheduling, expressing concerns, dealing with program requirements, etc.).

The pilot study also allowed me to gain experience with a new analytic method: poetic analysis. I reached a point in the analysis when my own frustrations with the supervisory process made it difficult for me to look at the data from any perspective other than my own. As an exercise in my doctoral coursework, I was challenged to use poetry to analyze the troublesome passages from my data. The following series of five data poems was the result. (The poems are read line by line from left to right.)

One

My residents plead . . .
Tell me what to do.

               And I answer . . .
        Tell me what you want to do.

Tell me what I should want.

             What is your objective?

I want them to learn.

               How can I help?

Tell me what to do. I'll do anything.

       Tell me how I can support you.

I don't know. I just don't know.

Two

My residents ask . . .
Tell me what to do.

             And I answer . . .
        Tell me what you want to do.

I want to teach my way.

            What's stopping you?

She doesn't teach this way.
She says they're not ready for my way.

Do it anyway.
                                                      Blame it on me.
                                                   Tell her I made you.

But I can't do it your way either.

                                            Tell me what you want to do.

. . .

Three

I ask . . .
Tell me what to do.

                                                And my boss answers . . .
                                                You should know what to do.

Am I doing it right?

                                              You should be doing it this way.

Okay. Am I doing it right?

                                                              [silence]

Tell me what to do!

                                                              [silence]
                                                              [silence]
                                                              [silence]
                                                    Why didn't you do it right?

Four

I ask myself . . .
What should I do?

                                                And I answer myself . . .
                                                   You know what to do.
                                          Do what's best for the residents.
                                                   Document everything.
                                                      Hide your anger.

Five

So I go back to work and my resident asks . . .
Tell me what to do.

                                                              And I reply . . .
                                              Look at the data. What do you see?
I see myself.
I see my flaws.
I did this all wrong.
                                    And the CT remarks. . .
                        I like this part. You did this part really well.
                                                  Me, too. And this part here.
Oh, I see. Yes, I like that too.
                        But this part - maybe this part could be better.
                              Remember the other day . . . ?

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Yes, I see it. And maybe in this way . . .
                                                            So tell me what you want to do.
        I know what I will do.
        I will do this . . .
                                            And maybe this . . .
                                                    Right, and we can help you with this . . .
        and this . . .
                                        and this . . .
                                                        How can we help you do that?
                                                            Tell *us* what to do.

In reading these poems aloud, recording them and listening to my voice calling them out,

I was able to identify a new theme in the data: *tension between novice and expert*. Through the

five data sources and their resulting poems, I was able to link together two contrasting parts of

being a first-time supervisor—the need to be an expert for the residents I was assigned and the

knowledge that I was a novice teacher educator who needed guidance herself.

Research Design and Rationale: Multiple Case Study through Storytelling

To investigate final fieldwork collaborations, I employed a multiple case study design,

which utilized single-case analyses and cross-case analysis in order to go beyond the individual

cases and gain an instrumental understanding of what Stake (2006) referred to as the *quintain*.

"A quintain (pronounced kwin'ton) is an object or phenomenon or condition to be studied—a

target, but not a bull's eye. In multicase study, it is the target collection" (Stake, 2006, sec. 1.3)[3].

In the proposed study, the quintain was the final fieldwork experience. Stake's (2006) *Multiple*

Case Study Analysis provided a thorough and useful description of this research approach. I lean

heavily upon his text throughout this chapter to outline the methods used in the study.

In order to better understand the quintain, I selected three cases from the seven fieldwork

placements I supervised during the 2015-2016 school year to study, based upon participant

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[3] The reader may notice the use of section indicators rather than page indicators for quotations from Stake's (2006) text. This alteration from APA formatting is made to accommodate the electronic version of the text used for reference, which does not indicate page numbers.

availability and willingness. Each single case studied in this investigation was selected to inform my understanding of the quintain. I was able to represent a number of settings, including the following unique contextual factors: schools populated by students from low/high SES communities, schools with/without magnet focus, school mentors with/without previous experience as collaborating teachers, novices working with one/two school mentors, and novices with/without confidence in their mathematical skills.

Though Stake (2006) explained much about the cross-case analysis of multiple case studies (described in more detail in the Cross-case analysis below), the approach to single case analysis was left largely to the researcher. In this study, I approached the single case as narrative inquiries, focused on collecting and telling the stories of the novices and their mentors.

Defining *story* and *storytelling*. Because this study relies upon the collection and telling of stories, it is necessary to define *story* and *storytelling* carefully. By *story*, I mean any information (narrative or otherwise) that provides insight into the life of an individual, including his/her history, perspectives, motivations, frustrations, successes, expectations, etc. By *storytelling*, I mean any act that aids others in better understanding the life of that individual. A story provides pieces of the whole person, but it is not in itself the whole. Nothing could do that, short of living the experiences ourselves. As Margaret Atwood put it, "Where to start is a problem, because nothing begins when it begins and nothing's over when it's over, and everything needs a preface: a preface, a postscript, a chart of simultaneous events" (1998). Instead, the stories collected and told in this study are collections of personality, experience, expectation, and convergence that tell us more about what it means to be a part of teacher education fieldwork collaborations. As such, it has been my intention throughout this study to tell stories that help the reader better understand my collaborators' and my experiences.

Some researchers, like Coulter and Smith (2009), would argue with my definition of story. According to these two (well-respected) educational researchers,

Stories follow an arc from a beginning to an end, have characters and sites of action, and comprise events in scenes arrayed across time in which the characters act or are acted upon by other characters and events. Without any of these underlying elements, there is no story (2009, p. 579).

Some of the stories told in Chapter 4 follow this format. For a better understanding of the full experience, however, I recognized the unrealistic expectation of encapsulating our complex experiences with tidy beginning-middle-and-end stories. Instead, the stories told as a result of this study take the form of descriptions, poems, fictionalized narratives, and Venn diagrams. These stories have been cobbled together from a myriad of sources to help the reader better understand the complex and overlapping experiences of educators working together during fieldwork collaboration.

In the writing of these stories, I developed a fluidity between researcher and mentor educator that made the word *story* an umbrella term that referred to the stories I collected from participants, the stories I wrote as a result, and the stories we shared with each other throughout our collaborations. Though the use of a single word to describe all of these ideas may seem presumptive, it is the most honest way for me (as the researcher and as a mentor educator) to share our experiences. Bochner (2001) said it very well:

Life both anticipates telling and draws meaning from it. Narrative is both about living and part of it. . . It is within the frame of a story that facts gain their importance. Life stories may be based on facts, but they are not determined by them. The facts achieve significance and intelligibility by being articulated within

a temporal frame that considers what came before and what comes after. . . The

call of stories thus inspires us to find language that is adequate to the darkness and

obscurity of experience. We narrate to make sense of ourselves and our

experiences over the course of time. (2001, pp. 154–155).

By considering these stories as descriptions (of individual histories, perspectives, and

expectations), as narratives (with beginning, middle, and end), and even as poems (that

illuminate rather than describe), it was my intention to provide the reader with insight into the

experiences of the educators involved in these three triads while recognizing the inadequacy of

my language to do so.

Another reason I used the word *story* to represent a multitude of formats was the

overlapping nature of the stories I collected and the stories I told. As I collected data for this

study, I did so with a dual focus: (1) to better understand the experiences of fieldwork

collaborators and (2) to consider how the sharing of these stories affects fieldwork

collaborations. In doing so, everything shared with me by a participant or among participants

was a piece of the larger story. As such, the word *story* is used to describe personal stories,

stories about teaching, stories about our collaborative experiences, stories about frustrations,

stories about successes, and much, much more.

Care of the stories as I engaged in storytelling. This multi-case study used the

collection of stories and the telling of stories to examine teacher education fieldwork

experiences. In so doing, I was ever mindful of the owners of these stories. As Reason (1994)

noted, "one of the key questions about research is the political one: Who owns the knowledge,

and thus who can define the reality?" (p. 325). I struggled with this aspect of storytelling as I

constructed the stories in Chapter 4. I made several decisions in favor of the participants (as opposed to the researcher or the readers) in order to honor the stories they have shared.

The first such decision was to involve the participants themselves in the production of the stories. In the spirit of co-operative inquiry (Reason, 1994), I shared with each participant the right to alter data collection procedures (including the number or timing of interviews and the construction of protocols), the right to analyze data, and the right to alter or delete the stories I wrote. Though I was ultimately responsible for the design and execution of the study, it was my intention to conduct research *with* participants rather than *on* or *for* them. I also accepted the variances that naturally occurred between cases due to this approach. Given the need to treat each individual case like its own study (Stake, 2006), I did not engage with all participants in all cases in the same way, a variation that was mediated by each participant's personal investment in the study. Considering the fact that in large multi-case studies, each case is often managed by a separate researcher, potential case-to-case variances are not a detriment to multi-case research.

Another decision I made to respect the stories shared was to allow for this variation to create what may seem like imbalances between the stories. In the telling of the stories in Chapter 4, the reader may notice some differences in the seeming authenticity of various voices. During member checking, for example, the participants from Case 1 provided little feedback about their stories other than "that sounds great" when asked to participate in member checking. The participants in the other cases, however, provided a great deal of feedback including editing the language, deleting portions of the story, or adding new parts of the story.

Lastly, I decided to make use of what might be perceived as dissonant language by using the vernacular of the participants. Though as a scholar and a writer, I am more comfortable using scholarly language, I found that the participants were more authentically represented when

their stories were told in the kinds of words they would have used. In some cases, I used direct quotations to illuminate participants' ways of speaking and thinking. In other cases, I made use of hyperbole, colloquialisms, and other linguistic nuances that represented the way the participant most often presented him/herself.

Study Context

The cases in this study were drawn from a middle school mathematics teacher education program in a large university in the southeastern United States. The program was structured to be completed over two years, which typically served as the last two years of undergraduate work. During the first of these two years, novices took educational methods and content courses while participating in two semester-long practicum fieldwork placements. In these early field placements, they were partnered with a peer and primarily observed and assisted in the classroom. The second year residency was designed so that novices (residents) were assigned to a single fieldwork placement for the entire year. Novices were in their school mentors' (collaborating teachers') classrooms four days each week and spent the fifth day on campus attending classes and engaging in a residency seminar. All novices were assigned to fieldwork placements in middle schools from a large school district that serves over 200,000 students.

A total of 13 mathematics residents were placed in year-long field placements for the 2015-2016 school year. There were two university mentors (supervisors) assigned to the thirteen residents in the program, myself and another doctoral student. I was personally assigned seven residents in five schools. It was from these seven residents and their nine collaborating teachers (two residents were assigned multiple collaborating teachers) that I drew my sample.

During the residency fieldwork, supervisors were required to conduct eight formal observational cycles of each resident (four each semester). These cycles consist of a pre-

observational conference (or pre-conference), an observation, and a post-observational conference (or post-conference). To prepare for the conferences, residents were asked to complete questionnaires that were in alignment with the district's teacher evaluation system. These artifacts provided information about the lesson to be observed (pre-conference) and a reflection on the observed lesson (post-conference).

Case Selection

Three cases were chosen from the seven residents with whom I worked during the 2015-2016 school year. As a participant in each of the cases that were formed, I was aware of the need to make my recruitment procedures as "hands-off" as possible so that my personal connections with prospective participants did not create undue influence over decisions about whether or not to participate in the study. An email request was sent to all seven residents and their collaborating teachers to ask about their willingness to participate in this study. Based on the affirmative responses received, I obtained consent from three residents and their collaborating teachers as study participants.

Data Collection

To collect data about each case, I used interviews, observations, and a researcher journal (See Figure 3). Data were collected throughout one academic semester in a loosely constructed format in order to honor the time demands of participants' responsibilities to the fieldwork and their students (See Figure 4).
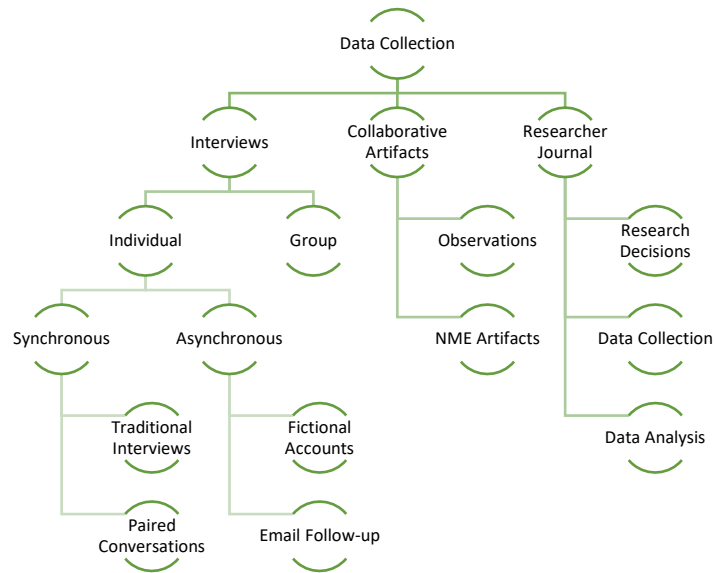
Figure 3. Data collection included interviews, observations, and a researcher journal.
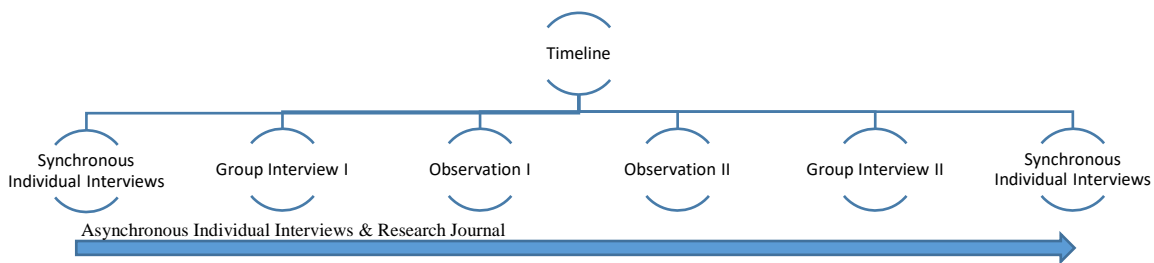
Figure 4. The Data Collection Timeline was loosely constructed.

Individual interviews. An essential tool in gaining an understanding of the experiences, needs, and expectations of the triad members was to give them opportunities to tell their stories. To facilitate storytelling, individual interviews were held synchronously at the beginning of the study. These interviews were conducted face-to-face at the placement schools. I also conducted interviews asynchronously during the semester via email. The multiple collection efforts were designed to capture the full experience of the co-participants and provide them with multiple and diverse opportunities for sharing their stories. As Pintrich (1990) states, "student teachers and experienced teachers can have multiple 'possible selves' . . . that can be activated in different situations" (p. 837). By collecting data throughout the semester, I hoped to access these multiple

selves and build a more complete view of the experiences of the participants. Each type of interview data is described in detail below.

Synchronous individual interviews. During synchronous individual interviews, I engaged participants in conversations guided by protocols designed to gather information about their perceptions of mathematics teaching, roles during the fieldwork experience, and expectations during the experience (See Appendix A). Because the purpose of data collection was to collect stories and I was a participant myself, I also used individual interviews to share stories about myself and my experiences with my collaborators. Interviews lasted from thirty minutes to two hours with a typical length of fifty minutes (the duration of one class period).

The initial interviews were used to collect information from each participant about background, views about teaching and learning, experiences as a student and as a teacher, and any other stories they felt were important to understanding their experiences. These interviews provided a context for the individual and collective stories that would be told. Background information included coursework (novices), years of teaching experience (mentors), years of mentoring (mentors), experience as a novice (mentors), and other details that positioned the history of the participants. To gain perspective about the participants' views about teaching and learning, they were asked to answer questions like, "What is the role of the teacher in the classroom?", "What is the role of the student in the classroom?", and "How much autonomy should a teacher be given?" This information was used in the final case reports to introduce the participants to the reader.

Paired Conversations. As outlined in Figure 3 above, synchronous individual interviews included the possibility of "paired conversations" within each case. These paired conversations were similar to the traditional interview outlined above, but instead of being facilitated by me,

paired conversations were conducted between other participants in each case. The use of this format followed the example of Bullough and Draper (2004) and more fully realized the co-operative inquiry approach (Reason, 1994) outlined above for individual cases.

One such interview was conducted between the two school mentors in Case 2. When given a choice between setting up individual interviews with me or speaking with one another, the collaborating teachers chose to video record a conversation between themselves. I provided a set of protocol questions and asked them to allow the conversation to flow at will. The participants found this process very convenient and useful. They were able to negotiate a time between themselves and start/stop the interview at will to attend to other duties. Since they taught in adjoining classrooms, this interview method was much more efficient and convenient for the participants than attempting to coordinate their schedules with me.

Asynchronous individual interviews. Rather than using formal protocols, asynchronous interviews involved sending brief email messages requesting participants to reflect on a specific aspect of the fieldwork experience. Topics for these interviews were selected from the group interview and observational data. Participants were also encouraged to provide reflections about their experiences beyond formal requests. The strength of this approach was the ability to capture participants' own words and to allow them to offer information organically as it occurred to them (Dowling, 2012; Salmons, 2010). Due to end-of-year responsibilities, I used an asynchronous interview to conduct the final interview of the semester. Participants were asked to provide "one last story."

As we wrap up this semester, I would like to request one more story from each of you. I'd like for you to think back on this year and your collaborations with one another and myself and share one story from this that you feel is representative of

your experiences--a single story that illustrates the essence of your year (Elrod,

2016, email correspondence).

Participants were encouraged to tell their stories using whatever medium best suited them. Four

of the participants responded in writing and the other three responded orally during audio

recorded group or individual interviews.

Synchronous group interviews. A group interview was also conducted for each case.

Protocols for these conversations were constructed from analysis of individual interviews and

consisted primarily of follow-up questions for individuals or quotations from individuals that I

wanted to pose to the group. Group interviews were conducted in the collaborating teacher's

classroom for ease of access and often had the feel of a collaborative pre- or post-conference

meeting. Since I was both participant and researcher in the study, group interviews took the form

of a conversation guided by the protocol, which was accessible to all participants. Group

interviews were videotaped to facilitate multiple viewings.

Observations. Observations of collaborative meetings were video/audio recorded twice

during the semester. These observations differed from the synchronous group interviews in that

they focused on the fieldwork rather than talk *about* that work. In this way, data collected from

these observations helped to answer the second research question: How do the novice and his/her

mentor use their experiences, needs, expectations, and role perceptions to work together within

the triad to create opportunities for novice phronesis?

During these observations, I served as the university-based mentor and collected data

related to the topics we discussed, the input of various members, decisions that were made about

the resident's upcoming observations, and other program-specific details. As a participant,

taking study-related notes about the interactions between the collaborators was not a reasonable

goal. Instead, I viewed/listened to the observations multiple times in order to collect data about

the ways each member of the triad interacted with his/her collaborators. In particular, I wanted

to answer the following types of questions:

- Who spoke most often?

- What topic was most often addressed and by whom?

- How was the conference organized and by who?

- Did all members of the collaboration contribute to the conversation?

- Did the novice have an opportunity to change the subject? If so, did he/she do so?
  How did the mentors respond?

In attending to these data, I also referred to the data collected during the conference in the form

of conference notes. These artifacts (a part of the data detailed below) helped to answer some of

the observational questions and fill in the context of the conference with regards to the

observations and conferences that preceded and succeeded it.

Novice Artifacts. A second source of collaborative artifacts were the documents

generated by and for the novices. During each conference and each observation, data were

generated through reflections, field notes, and other inter-triad communications. These data were

housed in a OneNote file accessible to all members of the triad and updated throughout the

fieldwork experience. These data were useful in answering both the second and third research

questions.

Researcher Journal. In qualitative work, the primary tool of research is the researcher

herself (Creswell, 2013). As such, I kept a detailed researcher journal to capture four types of

data—decisions made about the research study in general, notes about data collection, notes

about data analysis, and notes about my experiences as the supervisor—throughout the planning,

implementation, and analysis of the study and its pilot study. These data served in the analysis portion of the study to provide insight into how I, as the researcher, impacted the study and the impetus for decisions made throughout the research process. Along with novice artifacts, it also helped me to answer the third research question by providing me with a vehicle for reflecting on our collaborations. Specifically, it allowed me to consider how the stories shared by my collaborators changed the way we worked together.

Data Analysis

Data analyses were conducted throughout the study. Results from early analyses informed data collection efforts as described previously. From the first synchronous individual interview, data analysis was used to inform subsequent interview protocol questions and the focus of subsequent observations. Analysis at each stage began with multiple readings and listenings of the data. As I immersed myself in the data, I used thematic analysis to create in-depth memos for each piece of data that were color coded to represent themes pertinent to each research question, loosely following a process outlined by Stake (2006). Rather than using the paper-and-pencil methods outlined in his *Multiple Case Study Analysis* (2006), however, I modified Stake's procedures to fit an electronic housing and analysis of the data by using OneNote as described in the sections below.

Data storage. Stake (2006) discussed multiple case study analysis in the context of a team of researchers, but noted that such studies are often performed by single researchers, especially in the case of dissertation endeavors like this one. Whether in teams or as a single researcher, however, Stake stressed the need to study each case in isolation (single-case analyses) before drawing conclusions across cases (cross-case analysis). In a study staffed by a research team, the single-case and cross-case analyses would be performed by different people in

varied locations and with separate data storage. In the case of this single-researcher study, I

performed both types of analysis and as such needed the space to separate the case findings from

the cross-case analysis in order to better address the quintain of final fieldwork collaborations.

To this end, data were collected in the ways outlined in the sections above and stored in a

single OneNote file with separate sections for each case studied. The data were organized as

shown in Figure 5, where each case was provided space for individual participant data,

researcher-specific data, and thematic data that emerged. By using OneNote, I was able to store

various types of data including text, image, video, and audio. The features of OneNote also

allowed me to easily add memos, hyperlink themes to source data, and link memos to the audio

files from which they originated.
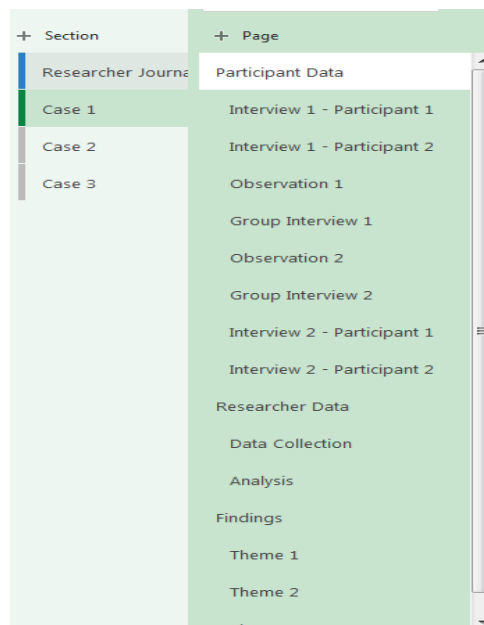
Figure 5. OneNote provided separate
space for data from each case.

Single-case analyses. As noted above, the cases selected for this study were chosen with

the express purpose of informing the quintain—the experiences of the final fieldwork. As Stake

(2006) notes, however, "the individual cases should be studied to learn about their self-centering,

complexity, and situational uniqueness. Thus each case is to be understood in depth, giving little

immediate attention to the quintain" (sec. 1.3). With this thought in mind, each co-operative case

was examined first as an individual entity, ignoring the larger study and other cases. Using the

OneNote storage system described above, individual cases were examined before, during, and

after data collection (Miles, Huberman, & Saldana, 2013). Before (or at the very beginning) of

data collection, I used Stake's "Grapic Design of a Case Study" (2006, sec. 1.2) to chart the

contextual considerations for each case. For example, a case in which a novice was working with

two school mentors in a magnet school setting (Case 2) was represented by the image in Figure

6.
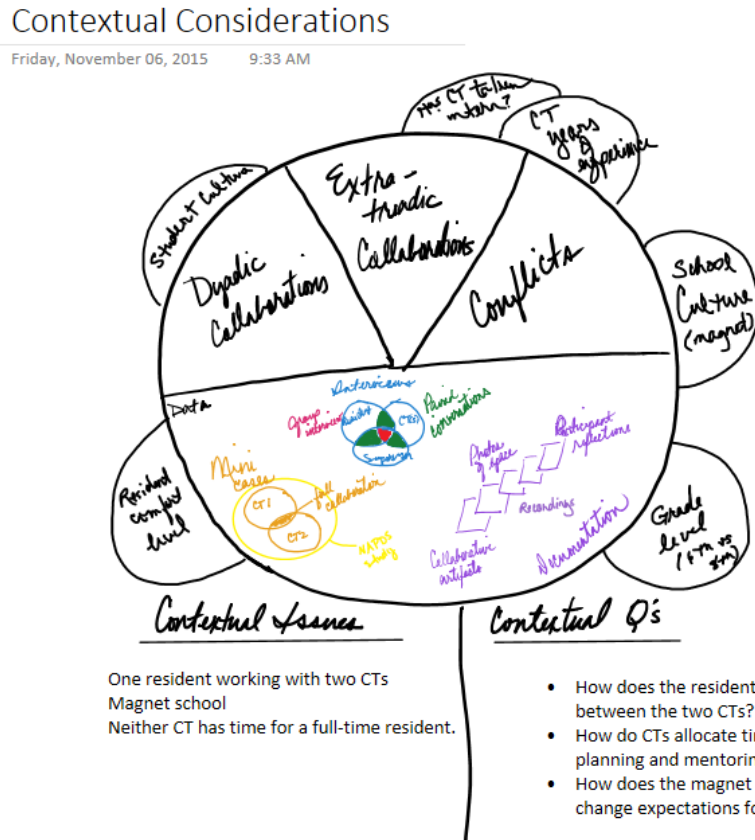
Figure 6. I used Stake's (2006) graphic design to chart the contextual
considerations for each case.

Deductive themes. Though Stake (2006) was quite explicit about the procedures for

cross-case analysis, his methods leave single-case analyses were less detailed. In preparing the

cases for this study, I relied upon a narrative approach—specifically, the collection and telling of stories. In analyzing each case, I reviewed the interview, artifact, and reflective data collected to identify themes both inductively and deductively. Because it would be naïve to assume that I could or would enter into analysis without preconceived notions or expectations (see subjectivity statements throughout), I entered into the coding process recognizing my expectation to find the following preexisting themes based upon my research questions:

- Individual educational experiences as a student or as a teacher

- Collective experiences as a triad

- Novice phronesis, and

- Unique opportunities due to story sharing.

Inductive themes. Along with these a priori themes, I also used memos to identify themes that emerged from the data. Although my own subjectivities position my expectations, my objective in this study was to better understand the experiences of the co-participants. Because the themes listed above were situated within my own experience, it was necessary to find a critical distance from them during analysis and look for themes inductively.

Both of the analytic avenues above were undertaken through multiple strategies rather than focusing on one particular method. In the cross-case analysis sections that follow, specific procedures are spelled out for attending to what is known about the quintain, but in the analysis of each case, I adopted a bricoleur approach to analysis (Denzin & Lincoln, 2013), combining thematic analysis, poetic analysis, the creation of diagrams, and storytelling. These methodologies are described in further detail below.

Storytelling/Narrative analysis. The primary strategy I used for analyzing single-case data was narrative analysis (Grbich, 2012). Specifically, I employed the sociocultural approach

to narrative analysis for the interview data that I collected from co-participants. In this approach, I began by identifying the boundaries of the stories co-participants told. Did the narratives tell the story of an entire teaching career? A past incident as a student? A co-planning session? A single hour of instruction? Next, I explored the story for the ways in which the storyteller made sense of the events and the emotions he/she expressed. Because I collected stories from multiple co-participants in each case, I was able to compare stories across co-participants, both the stories that overlapped in timeline and incident and those that relayed the same emotion or impact on the participant. Lastly, I linked the stories to the collaborative work of the case participants, situating myself and my own perceptions within the collaboration.

   Poetic analysis. An analysis strategy I found particularly useful when I had trouble making sense of my reaction to the data was poetic analysis (Grbich, 2012; Prendergast, 2009). In her twenty-nine-line poem about poetic inquiry, Monica Prendergast wrote,

   Poetic inquiry is used by scholars to express various kinds of affective

   experiences such as being a girl, a student, a teacher, a social worker, a caregiver,

   a nurse, a cancer patient, a refugee, an immigrant, an anthropologist in an alien

   culture (Prendergast, 2009, p. 1).

In choosing to use poetic inquiry, I recognized the affective nature of the interpersonal relationships and personal experiences I was studying. Though often used to present findings, poetic inquiry is also a powerful analytic tool (Grbich, 2012). For example, in the pilot study, I reached a point in the analysis when my own frustrations with the supervisory process made it difficult for me to look at the data from any perspective other than my own. As an exercise in my coursework, I was challenged to use poetry to analyze the troublesome passages from my data. I experienced a similar frustration in analyzing Case 2 of this study. My own experience of the

collaboration and that of my novice seemed to be not only contrasting, but contradictory. As a way of better understanding the data I was analyzing, I wrote the following conversational poem. It can be read as a conversation I had with myself about my experience and my reaction to it and should be read from left to right, top to bottom. *(Names in the poem have changed to align with pseudonyms in the case report: Victoria is the novice, Ann and Cam are her school-based mentors, and Dana is the mentor for another novice at the school.)*

We did it. We did a great job.

Yes, she graduated.

We communicated with each other.

Did we? Did we really?

Well, yes. I was honest with my collaborators?

What about Dana's story? Did you tell them about that?

Well, Ann and Cam certainly communicated with each other and with Victoria and me.

That seems true. I don't see either of them holding back.

Cam is secure in her place. She doesn't worry about whether or not we'd approve of her.

She does seem that way.

Ann seems very concerned with appearances, though.

Yes, but she is very open about it. I don't think she's hiding, even when she's fixing her own quotes.

But isn't fixing hiding the truth in some way?

It's about intentions

It's about real experiences.

It's about reflection and growth.

It's about the truth.

Whose truth?

But what about Victoria?

Yeah, that one hurts.

Did I do something wrong?

I don't know.

Intimidation.

Reticence.

Fear of reprisal.

Personality?

Lack of Respect.

Whose?

Everyone's.

Did I get too caught up in what I thought I knew? With what I thought I was doing right? With being pleased that everyone was contributing to the conversation?

*But everyone **was** contributing. That's worth being proud of. Think of NAPDS.*

Yeah, I really patted myself on the back for that one.

Don't be so hard on yourself.

If not me, who? I was the facilitator of all that. It was my responsibility to listen to her. To make sure she was heard.

You can't hear what she doesn't say.

Couldn't I have made her more comfortable in the saying?

You can't make anyone do anything but pay taxes and die.

Fine, Mrs. Maddox[4]. I hear you.

Did I inhibit her?

---

[4] Mrs. Maddox was my 3rd grade teacher. She said that a lot. She wasn't a nice lady.

I don't know. She says it was the situation.

> *Yeah, but I'm part of the situation.*

> *I've read the research. I know how it goes all wrong.*

All knowing, eh?

> *Okay, no. But I was looking so hard for the signs.*

Yeah, and if they were there, you missed them.

But maybe they weren't there.

> *Some of them were, but others weren't obvious until I looked at the data.*

Breathe. Keep looking.

After writing this poem, I read it and reread it, both aloud and to myself, listening to my own frustrating and confusion tumble over me. I shared it with the novice (Victoria) and asked her to respond to it. What resulted was an additional interview in which Victoria revealed a little more about herself. That data became invaluable to the story I told in the case report.

I also used poetry in the presentation of Case 2 to better illustrate the experiences of Victoria and her mentors. Those poems are found in Chapter 4.

Creating diagrams. Because I was concerned with understanding the way individual experiences, needs, and expectations intersected in the collective experience, I found it very useful to represent inter-case relationships diagrammatically. As I wrote the story of each individual for each case report, I considered the way those individuals related to one another collaboratively. In creating these diagrams, I was able to more effectively tell our collective stories.

Member checking. Throughout the analyses, I made use of a three-phase member checking system. In the first phase of member checking, I sent each participant the individual

story I had written to represent his/her personal experience. I asked participants to read their stories and consider the questions: Does it feel true? Does it represent you? Is there anything missing? Are there parts you would delete? Would you feel comfortable sharing this story with the other member(s) of our triad? I asked the participants to return these stories to me with their comments and edits.

Once participants and I reached agreement about the individual stories, I began phase two of member checking. I compiled the individual stories (as allowed by the participants) and those stories that illustrated the connections between/among members into one document and shared these documents with the trios. I asked the participants to review their own and others' stories for context and provide feedback about the collective stories.

There were two exceptions to this phase of member checking. In Case 2, one member of the triad asked that her story not be shared with the other members of the triad. As the novice in our collaboration, she was uncomfortable telling a story that turned out to be very difficult for her with her mentors—even her former mentors. In Case 3, one of the stories told was about a fourth member of our triad who was present in reputation only. This fourth member was a school mentor, Susan, who was assigned by the university program to the triad, but ultimately did not participate. As such, Susan's story was not collected from her directly, but because her presence in the program had such an impact on the other members of the triad, I included her story as "absent, but present". Because Susan was not a formal part of the data collection, I did not include her in the member checking process. Instead, I shared her story with the other members of our triad, Fiona and Sophia, one of whom was the Subject Area Leader for the school and very protective of the mathematics teachers in her department. Both Sophia and

Fiona agreed that the story was fair and could in no way harm Susan and that her story was represented with integrity as a part of our collective experience.

In the final phase of member checking, I added the stories of phronesis and asked the participants to consider the opportunities the resident had to learn during our collaborations. I provided them a formal definition of the word *phronesis* and asked them to consider specifically those cases in which the resident was given opportunities to apply it. Put plainly, I asked participants to identify those opportunities the residents had to apply generalized teacher knowledge to specific teaching situations both inside and outside the classroom.

The participants were very responsive throughout this process and I received 100% participation through all phases. In fact, the process of member checking created additional data sources as participants provided frank and useful feedback. In the case of two of the participants, we conducted additional interviews during the member checking process

During the member checking process, participants were also asked to suggest pseudonyms for themselves. In doing so, I followed the advice of researchers like Fine (1994), who advocated for the individuals' rights to name themselves and Reason (1994) who advocated for the sharing of research. Those participants who chose not to name themselves were assigned pseudonyms that aligned with the gender and culture of the participant. Once individual case analyses were completed, case data were rejoined with the multi-case files with co-participants' pseudonyms in place.

Fictionalized narratives. As a final step in the analysis process and a first step in the reporting process, I made use of fictionalized narratives (Lieblich, 2006; Linghede, Larsson, & Redelius, 2016; Shann, 2015; Smith, Silver, & Stein, 2005) to write the conclusionary story of each case report. I refer to these narratives as *fictionalized* rather than *fiction* because they arose

from the data, so they are true, but they are drawn from multiple stories and enhanced to highlight specific relational details, so they are also not nonfiction.

I constructed these fictionalized narratives in the style of scholars like Smith, Silver, and Stein (2005), who made use of fictionalized narratives in their book *Improving Instruction in Rational Numbers and Proportionality*. They explained their approach in the introduction.

> The cases are based on real teachers and events, drawing on detailed documentation (videotapes and write-ups) of classroom lessons and interviews with teachers about the documented lessons. At times, cases enhance certain aspects of a lesson in order to make a particular idea salient. However, every attempt has been made to stay true to the predispositions and general teaching habits of the teacher who inspired the case. (2005, p. xiii).

It is in this spirit that I have written the fictionalized narratives that represent each case. The narratives were drawn from the data collected in this study and I made every attempt to stay true to the experiences and relationships of the triad in each case.

Single-case reports. As noted above, single case reports were written to reflect the stories, experiences, inter-relationships, phronesis, and other details of each triad. By storing data related to each case in its own OneNote section (as above), I was able analyze data related to a specific case individually. As a result of single-case data collection and analysis, I generated case study reports that were summaries of "what has been done to try to get the answers, what assertions can be made with some confidence, and what more needs to be studied" (Stake, 2006, sec. 1.8).

Cross-case analysis. With data stored as above, I was also able to easily follow Stake's (2006) procedures for cross-case analysis. In *Multiple Case Study Analysis*, Stake provided a

series of worksheets[5] researchers can use to identify themes and make assertions about what he refers to as the *quintain* once the analysis of each individual case is completed. Through four of these seven worksheets, the quintain is analyzed by identifying how the cases contribute to the larger research questions[6]. In particular, Worksheets 3, 4, 5, and 6 direct the researcher through a series of steps designed to identify themes, judge the impact of those themes in individual cases, identify cross-case themes and judge their impact, develop assertions based on the themes, and merge the cases to form a cohesive view of the quintain. (These worksheets are available for download at http://www.ed.uiuc.edu/circe/EDPSY490E/worksheets/worksheet.html.)

Though Stake's (2006) worksheets were certainly well thought out and described, I chose to stray from his pencil-and-paper methods for two reasons. First, Stake himself recommended that researchers alter the worksheets provided to adhere more smoothly to the natural thinking patterns of the analyst. The method I describe below certainly adhered more closely to the way that I think about data. Second, Stake's pencil-and-paper method relied upon the willingness of the analyst to print and re-print a great deal of data (a quite literal, physical interpretation of "copy and paste"). I found this method both cumbersome and wasteful, so an electronic method better suited my need to be both efficient and ecologically responsible. In order to view and manipulate the data more fluidly, I chose to use Trello, a password-protected online organizational system, for cross-case analysis.

Step 1. Reviewing the cases. Once single-case analyses were performed, I set up a Trello board to house the themes and excerpts from what Stake (2006) described in Worksheet 3 as the

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[5] I have used the first of these worksheets in Figure 7. The full set of seven worksheets can be downloaded at http://www.ed.uiuc.edu/circe/EDPSY490E/worksheets/worksheet.html.

[6] Stake (2006) referred to the overarching, pre-identified research interests as themes, but I find this term misleading in discussions of analysis—peering, as I do, from my doctoral coursework—so I will continue with the more common definition of *themes* as predominant ideas that emerge from the data and *research questions* as the primary interests of my endeavors.

"Analysist's Notes while Reading a Case Report". In this portion of the analysis, Stake instructed the analyst to read through each case and make note of the following features: synopsis, general case findings, uniqueness of case situation as related to the quintain, relevance of case themes, possible excerpts for reporting, and any other commentary. Several of these aspects were highlighted or summarized in the case reports themselves and in this single-researcher investigation, I did not see the need to repeat this information. The themes, findings, and excerpts, however, were copied and pasted into a Trello board organized by case, which is shown in Figure 7.
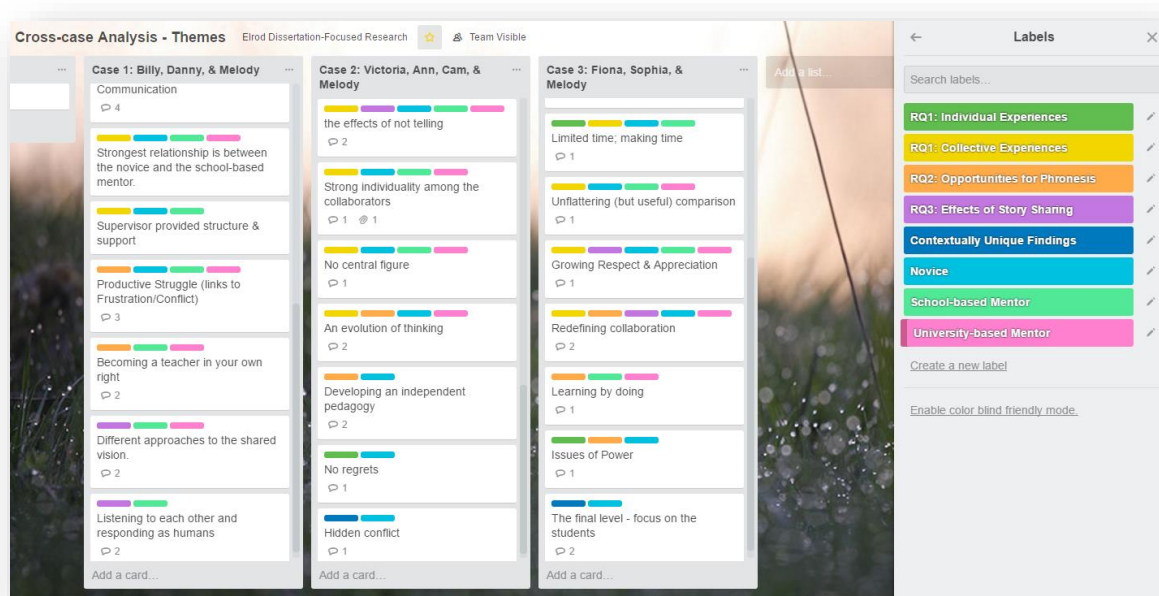
Figure 7. A Trello board was used to house case-specific findings and code them by research question.

As shown in the figure, Trello boards are organized by *list* (in this board, lists have been labeled by case) and populated with *cards* (in these lists, cards have been labeled by theme). Each card can be used further to note specific data excerpts, case report verbiage, and/or images pertinent to the finding for which it is labeled (see Figure 8, which depicts a card from Case 2).
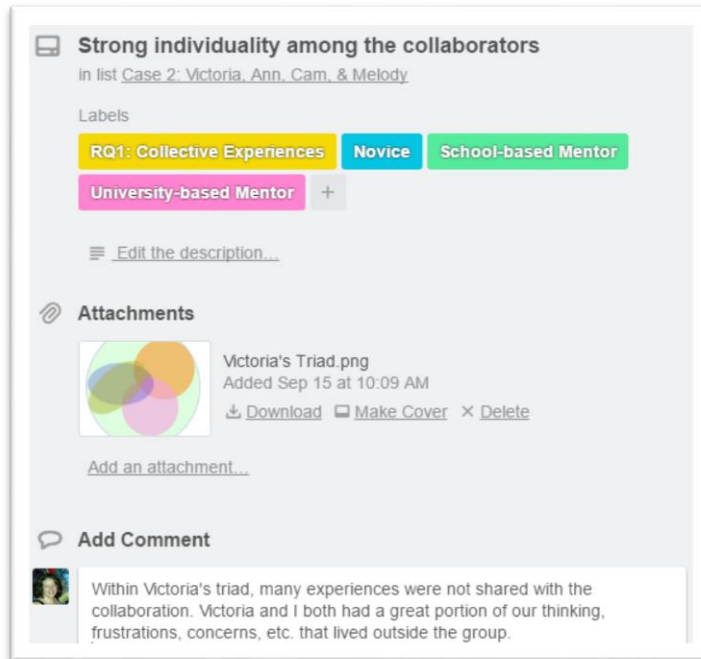
Figure 8. Each Trello card contained details about the
finding for which it was named.

The cards were then coded using Trello's labeling feature. For this board, I chose to assign labels

by research question and participant, as shown by the color panel displayed on the right side of

Figure 7. Notice that I also included the dark blue label, *Contextually Unique Finding*. This label

was recommended by Stake as a means of identifying those findings that emerged from cases

due to unique contextual factors that are not replicated in the other cases.

   Step 2. Determining the prominence of each finding for answering research questions.

Stake's (2006) next step in cross-case analysis is to determine the prominence of each finding for

answering the research questions posed about the quintain. For this purpose, a second Trello

board was created from the first and reorganized by a second list type: Research question. Once

the cards were created in the first step above, they could be manipulated easily using Trello's

drag/drop features and organized hierarchically in each new list by their relevance to the research

questions. As needed, I was able to also identify new research questions that emerged from

strong findings not oriented to any existing research question (e.g., the *contextually unique findings* labeled in Step 1). For example, in Case 2, analyses revealed a hidden conflict that had run through the duration of the residency that was known only to one member of the triad. This contextually unique finding revealed a small portion of what we don't know as a result of story sharing.

  Step 3. Making assertions. Once cards were reorganized in Step 2 to reflect those findings most relevant to the research questions, I began to make cross-case assertions. As I organized the themes from each case, I discovered a preponderance of particular themes and was able to use Trello to create new lists that focused on a specific aspect of each research question. For example, issues of power were present in each case, manifested uniquely in the connections and relationships formed in each triad. These clusters were identified across cases, and in some instances, across research questions and were used to make assertions about fieldwork collaborations (the quintain).

  To challenge the assertions I made, I reread the data and case reports, ranked the assertions by strength and relevance, and shared these assertions with my co-participants and colleagues. Through these challenges, I looked for false assumptions, missed opportunities, and alternate interpretations.

Ethical Considerations

  Because this study delved into the lived experiences of real people, the data collection and analysis process had the potential to be a painful one for the participants and/or myself. At times, we revealed difficult or unflattering information about ourselves or others. Interviews and observations had the potential to make us uncomfortable or feel exposed. As a result, participants were given the option to edit or withdraw the stories that represent them or to withdraw from the

study completely, rendering their cases useless to the quintain. In several cases, participants made use of their right to do so, which affected the way the final stories were told.

To protect the rights of my participants, I collected consent forms for participation in the study. This consent form included a full disclosure of the purpose of my study and the option to withdraw from the study at any time (see Appendix C). To improve the comfort of my participants, I established honest, open relationships very early. In an email exchange before the start of my study, I asked Dr. Bullough how he was able to gain the consent of their participants to tell such difficult stories in Bullough and Draper (2004) (see Chapter 2 for a synopsis of their study). In his reply, he advised me to "build relations early and . .. attend to them consistently, and . . . prove myself as trustworthy." "Without trust," he said, "game's over" (Bullough email interview, 2015). I did my best to heed his advice.

Beyond Dr. Bullough's wise counsel, however, my study provided another layer of possible discomfort for the participants involved due to my own participation as the university mentor in each triad. To address the storytelling aspect of data collection, I shared information with the other participants to facilitate a more equitable power dynamic among us. I am not naïve enough to believe that I was able to remove power as a complication in this study. In an effort to balance the playing field, however, I made an effort to be as honest with my collaborators as I could be, including revealing uncomfortable or embarrassing information about myself. As the supervisor in these collaborations, I also needed to consider the ways that this degree of openness altered the supervisory decisions I made and the way the collaborative units evolved as a result. Those reflections were captured in the researcher journal.

Credibility and Trustworthiness

In judging the credibility and trustworthiness of a multicase study, one must consider the relationship of the researcher to the quintain (Stake, 2006). In this study of the final fieldwork experience, I was a graduate assistant assigned to a grant-funded program as the university supervisor for seven undergraduate pre-service teachers. As such, I certainly had a vested interest in the outcome of this study. I believed in the work we were doing and the research I had done during the preceding school year to improve my supervision. Even as I finalize this report in hopes of earning my PhD, I am proud of the work I did with those seven novices and their mentors and feel that I established healthy and productive relationships with each.

Though a portion of each case pertained to my experiences as supervisor, however, this study was not about my supervision. Instead, it was meant to provide insights about experiences of all the educators involved in this fieldwork placement. The credibility and trustworthiness of the findings, then, can be judged upon how well I have been able to produce a research report that honors the uniqueness of each participant and inform the quintain. To that end, I have used member checking and data triangulation to promote the steadfastness of the study focus and the trustworthiness of the findings.

~~Generalizability~~ Transferability

Qualitative multicase studies are not meant to be generalizable in the way of quantitative experiments (Denzin & Lincoln, 2013; Lichtman, 2011; Stake, 2006, etc.). The cases that were selected for this study were not meant to represent all possible fieldwork collaborations. Likewise, the cases in this study were not compared during cross-case analysis—at least not in the traditional evaluative sense. Instead, "the cases studied are a selected group of instances chosen for better understanding of the quintain" (Stake, 2006, sec. 4.2). In the analysis of each

case and their collective cross-case analysis, the goal of this study was to better understand the final fieldwork experience, not to evaluate or make programmatic decisions. Indeed, in Stake's words,

> [generalizations] are problematic because they lead to expectations that they will optimally facilitate professional practice, which they will not. It is true that useful limits of practice may be established and that help may be given, but the essential determination of professional action will regularly come from custom and advocacy, not from science (Stake, 2006, sec. 4.4).

Regardless, Stake encouraged researchers to disclose generalizations tentatively. Not doing so could deprive readers of potentially useful applications to their own practice. Even tentative generalizations should be accompanied by a depth of context, however, to enrich the reader's understanding of its usefulness. In essence, though, "[b]ecause the reader knows the situations to which the assertions might apply, the responsibility of making generalizations should be more the reader's than the writer's" (Stake, 2006, sec. 4.4).

Rather than generalizations, this research is meant to be potentially transferrable to other mathematics educators, teacher educators, and novices engaged in fieldwork collaborations. The stories that are told in Chapter 4 and the assertions outlined in Chapter 5 are meant to resonate with educators in the field experiencing similar dilemmas and successes, frustrations and joys. Because the purpose of this research is meant to illuminate the experiences of educators collaborating during fieldwork, it is my hope that the stories my collaborators and I have shared will help our colleagues to empathize with one other and enter into honest and productive dialogue about their experiences, expectations, and perceptions to enhance their fieldwork collaborations.

Presentation of the Findings

Together with the single-case analyses, the cross-case analyses are presented in a manner

that best tells the stories of the cases and how those cases inform the quintain. The entirety of all

three case reports are presented in Chapter 4: Telling Our Stories. The format of each case report

is generally consistent with the others, but deviates to allow for the unique aspects of the

collaborators involved (Stake, 2006). Each case report begins with the individual stories of the

novice and mentors and, at times, stories of dyadic relationships within the triad. These

experiential stories are followed by stories that discuss opportunities for novice phronesis. The

third section of each case report attends to the effects of our story sharing—specific stories that

can be attributed to the way story sharing changed our collaboration. The final section of each

report is a fictionalized narrative. These stories are constructed from the data collected in each

case and are meant to provide a snapshot view of the fieldwork experience.

The case reports will be followed by Chapter 5: Assertions. In this chapter, I will discuss

the results of the cross-case analysis. I have chosen to separate this chapter from the stories told

in Chapter 4 because its purpose is different: Chapter 4 is meant to offer up stories with as little

judgement as possible, but Chapter 5 has been written as an admittedly subjective analysis of

those stories. The separation of the stories from their analysis also provides the reader with a

distinctive break between the enjoyment of story and the business of assertion. In most books

(fiction or nonfiction), the end of a chapter is a reasonable time to put the book down and process

what has been read so far. I invite the reader to process his/her own reactions to the stories. As

Coulter and Smith (2009) noted, "Narratives have the effect of evoking dissonance in the reader,

enabling the reader to look at educational phenomena with renewed interest and a more

questioning stance" (p. 577-578). By separating these chapters, I hope to provide the reader the

opportunity to draw his/her own conclusions independent of my own before delving into the assertions I have made through cross-case analysis.

In the final chapter (Chapter 6: Implications and Discussion), I will discuss the connections the assertions made in Chapter 5 have to the existing literature about fieldwork collaborations. I will also provide insight into the implications these cases and the assertions I have made have for healthy and productive teacher education fieldwork collaborations. Added to the lessons we can learn from these particular cases, I will address the implications the research methods I have use have for future research on teacher education fieldwork collaborations.

Chapter 4: Telling Our Stories

Where to start is a problem, because nothing begins when it begins and nothing's over when it's over, and everything needs a preface: a preface, a postscript, a chart of simultaneous events. *–Margaret Atwood, The Robber Bride*

We create narratives for people, because they are simpler than the complexities of real lives. Everyone wants a good story, with a prince and a princess and a villain. When narratives change, it's unsettling, because whether or not they're our own, they help to define us, and we don't want to let go of them. . . Ultimately what remains is a story. In the end, it's the only thing any of us really owns. . . But this is *a* story of my life, not *the* story. Who could ever begin to tell it all? *–Carole Radziwill, What Remains*

The Quintain: The Story of Fieldwork

The "quintain" in this multi-case study is the story of teacher education fieldwork--in particular the final fieldwork of a teacher preparation program. Teacher preparation programs generate graduation requirements for final fieldwork for teacher candidates, but these requirements vary from school to school. They ask supervisors to file reports on the success of candidates in meeting those requirements, but these supervisors are given varying degrees of preparation to support candidates—sometimes none at all. They ask collaborating teachers to

open their classrooms to teacher candidates and guide them in their early classroom experiences, but they rarely support them as teacher educators.

So how do we tell the story of fieldwork experience? Indeed, can we? That story is not one that can be told simply or concisely. It is complex and multifaceted. It originates from multiple players and the interactions between those players. It is unique for every individual and every collective. Can we tell such a complex story?

Can I tell the story that represents *all* fieldwork experiences? No, of course not. Instead, this dissertation tells the stories of three specific fieldwork experiences bound by the same program and the same supervisor (me). I have cobbled these stories together from my colleagues and told the best story I can to represent our experiences. It is my intention that these stories provoke dialogue among other supervisors, collaborating teachers, and teacher candidates to speak to the greater quintain I cannot access from my single perspective. In doing so, let us begin to reexamine what it means to place teacher candidates in the classrooms of K-12 teachers and liaise with them through university supervisors.

Caring for those who told the stories

The writing of others' stories is a difficult task, one that is fraught with power imbalances that can all too easily oppress the voices of the participants' whose stories are told (Reason, 1994). As noted in Chapter 3, I made a concerted effort to honor participants' willingness to share their stories and respect their continued ownership of them. Making these decisions meant that I did not engage with all participants in all cases in the same way and that there were variances in participants' involvement and their decisions about data collection, analysis, and the stories that were written.

As such, the reader may notice some differences in the seeming authenticity of various voices. For example, during member checking Billy and Danny provided little feedback about their stories other than "That sounds great!" In fact, when I pressed Billy for further input, I received this message: "It was and [sic] awesome read, I read it a couple of times, but I don't really know what edits are needed from my perspective, maybe [Danny] will have some better insight" (Billy, personal correspondence, 2016).

In other cases, however, I received a great deal of feedback and even additional interviews as a result of member checking. Ann and Victoria in Case 2 and Sophia in Case 3 all provided detailed feedback about their stories by editing the language, deleting portions, or adding additional stories. Fiona (Case 3) reported that she asked her husband to read the stories to her aloud so that she could consider the stories as a whole. She then provided feedback about the portions that did/did not seem representative of her experiences or parts she felt needed clarification. These differences in participant feedback made my own voice either more or less prominent in the telling of the stories. The reader may notice that while my own voice is quite prominent in Case 1, the stories in Cases 2 and 3 have a different linguistic feel as the stories of each participant is told.

The reader also might notice what could be perceived as dissonant language. This decision was particularly difficult for me to make. As a scholar, I pride myself one writing in a fluent, "readable" style. I decided, however, that though readers might have been advantaged by a smooth telling of events, the participant was often better represented through their own manner of speech. As such, the reader may find that some passages are more linguistically dissonant than others. These dissonances are intentional. That is, in some passages, I have purposely used the colloquial language of the participants to more authentically tell the stories they have shared,

revealing their ways of speaking, their emotional responses, or their frames of mind. Sometimes, these dissonant passages will be made obvious by quotation marks surrounding direct quotations from the data. Other times, however, the dissonant language is used in a paraphrase of the participant's speech or in the telling of an account in which the participant was involved. For example, in Sophia's story in Case 3, I paraphrased from an interview with Sophia that "Sophia has been teaching all her life". Though she has not literally been teaching all her life—and it is certainly not scholarly to use hyperbole—this statement is the way she herself would characterize her teaching experience. Each story told is meant to authentically represent the participants in them.

Organization of the Stories

Though each case was written to best represent the participants involved, I have organized the stories in each case into a loose structure that is consistent across the cases. After a brief contextual introduction to the participants and their school, each case has four predominant subsections of stories: individual and collective stories, opportunities for phronesis, effects of story sharing, and a fictionalized narrative. The first three of these sections were used during analysis to consider the research questions. *Individual and collective stories* provide context about the lives, motivations, experiences, expectations, frustrations, and joys of the individual collaborators. This subsection also includes stories about the dyadic relationships among the participants (e.g., school mentor and novice, novice and university mentor) and a description of the triad relationship. The *Opportunities for phronesis* subsection tell the stories of novice learning. They focus on opportunities provided to novices to apply generalized teacher knowledge to specific situations (phronesis). In *Effects of story sharing*, I focus on those aspects

of our collective stories that were impacted by our knowledge of one another—knowledge that was gained through story sharing during the residency program or during this study.

I close each case with a *fictionalized narrative* in much the same way that I asked participants to provide a "final story" at the end of our formal collaborations. These narratives are meant to further illuminate the experiences of one or more of the collaborators in each triad. I refer to these narratives as *fictionalized* rather than *fiction* because they arose from the data, so they are true, but they are drawn from multiple stories and enhanced to highlight specific relational details, so they are also not nonfiction. I have placed them at the end of each case because they were written last and served (for me) as the lasting impression of each case. It is my hope that they will serve to sum up each case for the reader as well.

> The stories we tell, and the forms our stories take, matter for the way we see,
> evaluate, and interact with the world; and this is especially important in
> teaching. . . Thus, storytelling should be of interest to all teacher educators
> seeking to develop robust pre-service teacher experiences. (Selland, 2016, p. 5).

I begin the telling of these stories with a story of my own background and intentions in order to provide a clearer picture of the storyteller.

Story Context

Though I have made an effort to tell the stories of these collaborations from the perspective of the participants, it would be naïve for me to assume my own voice has been silenced in the process. The year represented by these stories was meaningful to me and the professional and personal relationships I formed have an impact on the way I present these

stories. As such, it seems fair and right to begin by contextualizing my approach to this fieldwork, both professionally and personally.

The year of this study was my third year as a fieldwork supervisor and my second year supervising residents. During my first year of supervision, I worked with students in paired practicum placements. I visited each of their schools twice during the semester to observe one/both students teaching all/part of a lesson. I worked directly with the novices and interacted little with their school mentors. Along with fieldwork, I was also responsible for collecting qualitative data during the program's university methods courses, so I was well aware of the program guidelines for lesson planning and instructional strategies. I felt a lot of tension that year between the university requirements and the school mentors' expectations for instruction. I watched the preservice teachers transition from "middle school mode" to "university mode" as they tried to please both their methods instructors and their collaborating teachers. I was not part of the building the tension, nor was I part of easing it.

During my second year as a supervisor, I worked with novices in their year-long residency placements. In our program, residents were placed individually in classrooms where they were meant to co-teach with their collaborating teachers over the course of an entire school year. Along with our supervision coordinator, I co-supervised five residents that year.   I received no training for this type of supervision and approached it as I had the practicum supervision the year before. I worked one-on-one with the residents and interacted little with the collaborating teachers. I saw the same conflict between the university recommendations for planning and teaching and the way school mentors generally implemented instruction, only now I was the university supervisor responsible for upholding programmatic expectations. To that end, I worked around those school mentors to give the residents opportunities to teach in what I

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considered to be the "right" way by encouraging them to plan on their own and teach in ways counter to the school mentors' established norms, at least during observations. To be blunt, it was a terrible way to start the year. Without any understanding of the dynamics of fieldwork collaboration, I helped to create destructive dyadic relationships that undermined the school mentors' impact and stunted the professional growth of the residents. Neither the school mentors nor myself were effectively supporting the residents.

By October of that school year, I realized how bad things were getting and started to do research into the best way to support preservice teachers in the field. I read books on supervision and evaluation, I spoke to my own supervisors, and I sought out mentors with more experience than I to talk about my experiences in the schools. I began to see how my own actions had contributed to a culture of distrust and animosity in many of the placements and urgently wanted to try to heal some of these wounds. By the beginning of the second semester, I felt like I had a good understanding of what should have happened at the beginning of the school year to facilitate trusting and productive relationships, but I knew there was no way to start over. Instead, I sat down with each resident and his/her collaborating teacher and I apologized. I told each of them that I felt like I had started off the year wrong and I wanted to make things work better in our collaborations. I invited their input and listened to what they had to say. I shared observational data with the residents and their school mentors in an effort to allow the three of us to analyze the resident's progress collaboratively. These efforts were met with mixed results. In one case, things went well. I saw relief on the collaborating teacher's face and the three of us began to work together more equitably. In another case, though, the collaborating teacher was uncomfortable being asked to contribute in this way and became more reserved. Another resident had a similar reaction. She was unable to view the data as a learning opportunity and

was visibly upset when presented with a qualitative representation of her lesson she saw as judgmental. In general, there was no way to turn back time and create better working relationships.

Despite these belated efforts, that second year was not a successful one and it plagued me to know that those residents left their fieldwork without the benefits that should have accompanied a year-long experience. Though all five of them were able to graduate and secure teaching positions for the following year, three left the teaching profession before the end of their first year. I felt those losses personally--feel them still--and I entered my third year of supervision determined to foster collaborations that would support the residents in growing professionally.

At the beginning of my third year of supervision, the one I would use for this study, I was prepared. I had read the research; I had talked with the experts; I had studied my own supervisory practice deeply; and I knew how things should begin. I was confident that I knew what was needed for successful collaboration: to contribute equitably, to maintain a shared vision, and to see the resident as the goal setter. To facilitate equitable management of our fieldwork data, I used Microsoft OneNote to create two online notebooks that would house the data collected by each of us during the year during conferences, observations, and reflections (the Raw Data Tool) and data that supported the progress of the novice towards the goals of the program (the Coaching Tool). These notebooks were shared electronically with all members of the triad so that any collaborator could access and/or edit the data at any time across multiple devices. In doing so, I wanted to facilitate equitable participation throughout the cycle of goal setting, data collection, data analysis, reflection, and goal revision.

The second item on my list was to establish a shared vision. To facilitate this vision, I actively sought out the expectations, concerns, and hopes of each member of the triads. During the first few weeks of the school year, I visited each placement to begin to establish goals for each resident. I asked residents to jot down their goals for the year and facilitated conversations that focused on three aspects of fieldwork: (1) What are your expectations for this year? What would be an ideal residency experience? (2) What is the most important thing you can get out of this year? And (3) What is the most frightening thing about this year? I also used the initial visit to introduce the OneNote files I had designed and collected their responses in the Raw Notes files, showing them that they would have access to all the data I collected during the year. Throughout the school year, we revisited and revised these initial goals collaboratively, making note of our changes in the OneNote files as the resident progressed.

Last, I wanted to remove myself as the "assessor" during observations in order to facilitate residents' self-direction for professional growth and to establish a clear division between mentoring and assessment. In order for residents to become self-directed professionals, they would need to learn how to set goals, collect data to assess the progress of those goals, and implement changes in their practice. I felt that if I continuously assessed them, I would remove their power to assess themselves and lessen their power in the eyes of their collaborating teachers. If I could position the resident as his/her own assessor, perhaps the novice and school mentor would be able to see them in this way was well.

To remove myself as the assessor, I established clearer expectations for the observational cycle. During pre-conferences, I asked the resident to establish the goals of the observation. What did they want to improve? What aspect of their teaching did they want to study? How did they want to collect data to investigate that particular aspect of their teaching? Once the specified

data was collected through observation, the resident was asked once again to study the data, reflect on their teaching, and revise their goals for subsequent observational cycles. By asking the resident to make these decisions, I hoped to remove myself as the authority. Of course, as a representative of the university, I couldn't fully erase the power that came with that association, but I hoped to equalize our roles by more evenly distributing the decision making.

These expectations--to contribute equitably, to maintain a shared vision, and to see the resident as the goal setter--were established at the beginning of the school year in each placement. In general, the residents and collaborating teachers embraced these expectations. Certainly they did so to varying degrees, as you will see in their stories, but my perception of the year is that we all shared in these assumptions.

I ended this school year with a greater sense of accomplishment than in the previous years. Though the stories I have written have been vetted by the participants, my attitude about this school year certainly has bearing on the way I told those stories. I have experienced discomfort in some of my storytelling and have tried to fully experience that discomfort to tell an honest story. In general, though, I have enjoyed writing these stories. I feel accomplished in my efforts for this year. I feel as if we have been successful. Each of the seven residents I supervised was hired by the district for the following year. I am very proud of that fact. I parted company with all eight of the collaborating teachers with mutual respect and understanding. We appreciated the work the other did and moved on to the next year without regrets. These contented feelings have certainly colored the stories I have to tell.

Case 1: Billy, Danny, and Melody

Billy Beasley was placed at Jackson Middle School in Danny Abbate's mathematics classroom for his residency. Billy had already participated in two practicum placements with his

peers at other middle schools in the district, but his experience at Jackson would be his first solo venture. Danny Abbate was Billy's collaborating teacher (CT). Danny had been teaching 6th, 7th, and 8th grade mathematics classes at Jackson for several years and served as a school-based mentor in the past. He laughingly talked about how the principal was always parading people through his room—perspective students and their parents, pre-service teachers, first year teachers, etc.

Jackson Middle School had a focused STEM (Science Technology Engineering and Mathematics) program that encouraged all students to succeed in math and science. Jackson also had a prominent AVID program that helped struggling students to succeed by teaching study skills and other lifelong learning skills. Danny was involved in both of these programs and also served as the school's subject area leader (SAL) for mathematics. As such, Danny's school day was very full. He had four academic preps (classes to prepare) and was the sponsor for one of the school's student organizations. There were students in Danny's classroom before school, after school, and throughout the day—including his planning and lunch periods.

Individual stories.

Billy's story. In order for Billy to have the best experience, he needed balance between himself and his mentors. In achieving this balance, Billy sought to be a peacemaker--to "get along". When talking about his relationship with Danny, he noted "I just decided not to get into arguments . . . I'm going to be with this person every day for like 40 hours/week and if it's going to be super awkward, what's the point? . . . I would rather me take the rough end of the stick and not get what I want because in the end it's his classroom. It's his classroom, it's his kids, it's his pay" (2016, interview). He knew he needed to acquiesce to Danny's position as the classroom

teacher, but more than that, he empathized with the Danny's position as the paid teacher in the classroom. For these reasons, Danny had the power in this relationship.

Billy did not see this dynamic as a roadblock to his own success, however. Instead, he set clear expectations with Danny and was able to renegotiate those expectations when his circumstances changed. For example, when Billy's university coursework requirements during the second semester prevented him from living up to some of Danny's teaching expectations, the two were able to renegotiate Billy's responsibilities at Jackson. He was grateful for the balance struck between Danny and himself in managing planning and instruction and relied on Danny to guide him when he went astray.

Billy was also very dependent upon the open communications that were established between Danny and himself for facilitating all of the above. It was as if Billy trusted Danny to hold the greatest portion of power in the classroom as long as Billy was able to have a voice in renegotiating the bounds of that power when necessary. In other words, it was not so much a *giving up of power*, but a *bestowing of power* upon Danny.

Billy saw his relationship with Danny as separate from his relationship with me, as evidenced by his "final story", when he spoke of sharing meals with Danny as the representative story of his experience. Though he valued the structures I put into place, it was Danny he relied on for day-to-day support and guidance. He expressed frustration that I did not provide him with the level of feedback he would have liked during the year and recommended that I provide feedback more fully to residents in the future. He noted that during the cycle in which we co-taught while Danny observed, he liked having the opportunity to hear what I was thinking about a particular lesson and considered "how can I adjust my thinking to get to that level". He was thankful, however, for the focus on his own reflections and his freedom to guide his own

learning. When I asked if he felt he had some control over his residency goals, Billy replied, "I think that's all 100% me. You never really said 'Oh, yeah, that's cute, that you want to do that, but what we should really be looking at is--'" He elaborated by saying, "You said it multiple times. You didn't want your thinking to be my thinking. You wanted me to think for myself."

For Billy, the collaborations of the triad were focused on him. He felt that both Danny and I were fully focused on his growth and both provided support in helping him achieve his goals. Though he didn't note any particular interactions between Danny and me, he saw us as united in our care of him.

Billy's residency had an added aspect as well: the context of the school. Though not all novices are embraced by the faculty of their fieldwork school, Billy developed a number of relationships within the faculty. When talking about these relationships, he mentioned specifically the STEM team (of which Danny is the leader), and the AVID teacher. He referred to these teachers as "my team". In fact, when Billy presented at a state teaching conference, several members of the faculty attended his session and subsequently used the strategies he presented. As further evidence of his connections at Jackson, I witnessed the principal joking around with Billy during one of my visits to the school, an act that showed that the principal both knew who Billy was and had developed a strong rapport with him.

Danny's story. Throughout the year, Danny was concerned with what is right--right for his students, right for Billy, right for the school, right for me, and right for himself. For example, at several points during this study I collected data using audio or video recordings. During recorded conferences, Danny denied students their usual access to his classroom to protect their privacy. Likewise, when we used a video recording to collect data during one of Billy's observations, Danny requested that the videos be shared privately through a means other than

YouTube (which I had used to privately share other residents' videos). Another example of his sense of right was revealed when he was asked for his impetus for taking on an intern during the initial interview. Danny talked about giving back to the next generation and providing Billy with opportunities to grow. He reflected back on his own first year in the classroom by saying that he didn't have a formal internship and he wanted to be able to provide Billy and students like him with the kind of experience Danny himself didn't have.

As a result of his sense of right, Danny was very aware of the need to give up control in his classroom. This necessity seemed to make him a little nervous, but his sense of what is right overrode his discomfort. In his own words,

> Sometimes I get a little nervous about the teaching and having an intern, but [he
> pauses and shrugs] how else? How else? And you know, it all works out. Kids
> will fix things. They'll understand things and you just move on, you know?
> (Danny, 2016, interview).

Another example of this internal conflict can be seen in our video-recorded post conference. As noted above, Danny denied students access to the classroom to protect their privacy. Throughout the video, though, Danny's eyes return to the classroom door where he could see students' heads through the small window and hear their voices as they congregate along the sidewalk. Because school policy did not permit students to loiter in the passageways, Danny redirected them to other classrooms and hung a sign for subsequent students. In the video I jokingly called him a big softie for being uncomfortable denying the students access, but it is evident from the video that Danny was struggling to balance these two "rights"—students' privacy and the school rules.

Like Billy, Danny saw his relationship with Billy as the most important factor in successful fieldwork. As a collaborating teacher, Danny commented often that he had to let go of

his classroom, separate his teaching from Billy's, and allow Billy to fully explore teaching (failures, successes, and all) without creating a "mini me". Though he sometimes worried about the teaching and students' learning, he saw his role as a mentor as the right thing to do in helping to develop the next generation of teachers. Throughout this year, he developed a close relationship with Billy and trusted him with his students. He noted in more than one interview that he didn't leave sub plans after the first couple of months when he was called to SAL (subject area leader) meetings. His plans simply said "Mr. Beasley will teach". "I know with confidence that [learning] will move forward." He noted with pride that Billy was willing to take on more and more of this planning as the year progressed. He had to balance this knowledge of what Billy needs with the ability to let go of control in his classroom, which was admittedly hard.

In his relationship with me, Danny valued open and timely communication above all. He expressed his appreciation for my frequent communications and commented that he was often frustrated by a lack of communication in other professional relationships. Though he didn't say so explicitly, he also expressed appreciation for my support of Billy by relating stories about previous fieldwork. In those experiences, Danny felt protective of an intern when his/her university supervisor was present due to the detached, purely evaluative, and overly critical way observations and conferences were conducted. In our relationship, however, Danny expressed no need to protect Billy from my feedback. In this way, it seemed that Danny valued me as someone who is also highly invested in Billy's growth. Danny was also able to embrace new tools that I supplied. For example, I developed a data collection tool to use during observations that allowed me to track what was happening throughout the classroom both by time and location. Danny asked for a copy of the tool and described the ways he could see himself using it for future semesters as a teacher education tool.

In reflecting on the triad relationship, Danny talked about my role as the third leg of the stool—necessary for stability. When talking about the year in general, however, Danny's talk (like Billy's) focused on the close relationship between CT and resident. Though I was not an interloper in the classroom, my contribution was one of structure and support as opposed to the ongoing relationship that was nurtured daily between Danny and Billy.

Melody's story. Like Billy and Danny, I craved communication. I wanted to know what was happening in the classroom, but since it was not possible (or useful) for me to be there every day, I had to rely on both of them to provide that information. Early in our collaboration, though, I often felt out of the loop. Both Billy and Danny participated during our meetings, but I felt a sense of disconnection. The bond between them was so strong and I sometimes felt that our conferences barely skimmed the surface of Billy's residency in the first few cycles. Part of the disconnection—for me, anyway—was the fact that Billy and Danny were the only male collaborators I had that year. Though I had worked with a male novice before, I had never worked with a male CT, and certainly never the two together. There was something so different about the way these men related to each other that I knew I could not match.

I knew Billy from my work in the program prior to the residency semester. I had observed his methods courses at the university and had spoken with him in that context. I saw him as a sharp thinker and a compassionate teacher and I was happy to be assigned as his supervisor for his residency. Danny was an unknown entity, though, and one who seemed utterly in control of his environment. In the beginning, he was a little intimidating. It wasn't until well into the second semester of the year-long program that I felt a real sense of connection to Danny.

As the university supervisor, I was sure about my purpose in the triad. I was there to promote equitable communication and support Billy in setting and reaching his professional

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goals. Based on my previous experiences, I wanted very much to avoid relationships in which I held all the data or provided all the thinking. As an educator who believed strongly in social constructivism, I wanted to see Billy build his own professional knowledge. Because of my experiences and beliefs, I often held back my own pedagogical thinking during our conferences. I often revealed alternate thinking by relating an idea from another resident or CT, but not thinking that originated from me. This kind of sharing held true with my own training as a teacher and teacher educator, but it relied heavily upon the premise that equitable discourse builds knowledge—both mathematical and professional.

As the year progressed, I was grateful to Billy for being so highly reflective. Though Billy didn't always complete his pre/post-conference questions on time, his ability to study his own practice and make planning and instructional decisions based on that inquiry made him an exemplary resident in my mind. It meant that I didn't need to micromanage his work and I could feel confident in his ability to set and reach his professional learning goals. As it turned out, though, Billy was often frustrated by my reticence for revealing my own thinking.

I also needed to be able to trust Danny with the day-to-day-ness of being a mathematics teacher. I needed to be able to respect his teaching abilities and his mathematics knowledge. Though I planned one lesson with Billy, I did not generally talk with him about specific teaching strategies or mathematics concepts. Instead, I saw myself as the manager of his professional growth, emphasizing practical inquiry and goal setting. In order to be that person, I had to be able to trust Danny to guide Billy in exploring instructional strategies, sticky mathematics concepts, and day-to-day school structures.

Furthermore, I had to consider the effects of my interactions on Billy's ability to form a healthy, productive relationship with Danny. For Billy's sake, I couldn't undermine anything

Danny was doing by suggesting alternate instructional or behavior management strategies. I needed to be able to come to the classroom trusting that they would meet the goals set by the program with proportionally little input from me. That's one of the reasons I set up the Coaching Tool. Though it didn't work the way I wanted it to because the CTs and novices did not tend to use it themselves, it helped me to set expectations in my mind for the collection of data and share those expectations with Danny and Billy to show my trust in their ability to meet those program goals.

As the year progressed—especially after I began formal data collection for this study—I felt more connected to both Billy and Danny. As I learned about who they were as men and as teachers, I began to better understand how I could support both of them as educators. Though I already trusted them in their roles, I learned to work more effectively with them. In particular, I was able to see how their stories connected to my own. During our first group interview, Danny empathized with the frustrations I expressed for the year prior to our collaboration, which was my first year as a supervisor. He told stories about his first year as the SAL for Jackson and how ill prepared he felt for that role as well. Billy and I shared stories during another interview that helped me understand his frustrations with my unwillingness to share my thinking and helped him understand why I was wary of sharing too much.

Our Triad. Graphically, our triad could have been depicted by the circles in figure 9.
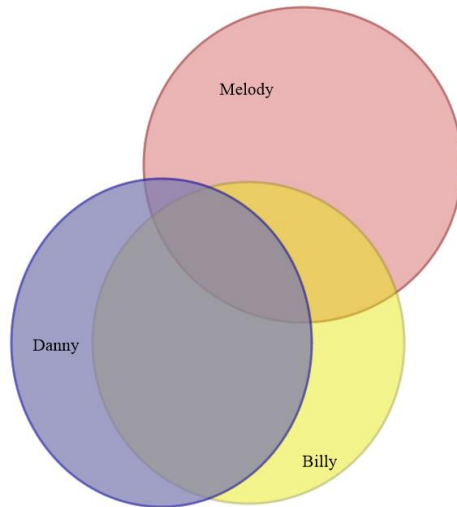
Figure 9. The triad relationship among Billy, Danny, and me involved a closer

relationship between Billy & Danny.

The purple, yellow, and red circles represent Danny, Billy, and me, respectively. The

overlap between Billy's and Danny's circles illustrates their strong bond, formed from their

constant day-to-day interactions. As Billy noted, Danny was there for the "small things every

day". When asked to tell a story that represented their experiences at the end of the school year,

both Billy and Danny talked about their daily lunches. According to Billy, eating together is "the

most primal way to get to know someone". For Billy and Danny, lunch came right after 3rd

period, which was Billy's most challenging class of the day. They used this time to talk about

the morning's classes and improvements they wanted to make for the afternoon classes, but they

also used it to share other aspects of their lives. "We talk about the plans, but then the next

moment we're making a fart joke," Danny laughingly comments. "And so then it all comes

down to the relationship. And the relevance. And then the rigor. Because it builds in that order.

And that's what we've developed here." (Danny, 2016, interview).

Though I formed useful and productive bonds with both Billy and Danny, my interactions

with them were not as deep as those connections they made with one another. The intersections

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of our circles above illustrate the stronger connection I had with Billy than I had with Danny. Using area as a metaphor for connection, the figure shows that my connection to Billy, while strong, was not as deep or meaningful as Billy's relationship with Danny. It also shows that nearly all the connections Danny and I developed were mediated by our relationships with Billy.

Though the connections we formed with one another were not all equal, by the end of the school year, the three of us were able to approach one another equitably. As we began to share stories with one another intentionally during individual and group interviews, our contributions during conferences and casual exchanges between conferences and observations evolved. In contrast to the disconnectedness I felt at the beginning of the school year, the conferences in the second semester included more stories from Billy and Danny's day-to-day work. They related to me some of the classroom interactions that Billy had found especially meaningful and showed greater appreciation for the resources I provided. Likewise, I spoke less during these meetings than I had during the beginning of the school year. I did not feel the need to keep the conversation going because Billy and Danny both contributed more freely.

Opportunities for phronesis.

A shared vision. The bedrock of our collaboration was a shared vision for Billy's success. Billy summed this theme up nicely during his interview with me: "what I see there in terms of us three together would be just working together for my improvement." Danny, too, echoed this sentiment when he talked about communication and relationship building, referring to the three of us as three legs of a stool—the most stable kind of stool. Though we may have gone about it in different ways—Danny through day-to-day mentoring, me from a structural perspective, and Billy himself through critical self-study and goal setting—all of our actions were focused on helping Billy to grow professionally.

This shared vision was evident in the conference observations as Billy took center stage to describe the observation, what he learned from the data, how it changed his instruction, and his reflections about the process. Danny and I provided structure to the meetings by asking probing questions and providing alternate scenarios.

Productive Struggle. A second theme of our collective story was the productive struggle Billy experienced during his fieldwork. Each member of our triad spoke about struggle as an essential part of learning. Several times during interviews and conferences, Billy noted that his frustration this year was necessary preparation for next year. While speaking about his relationships with Danny and other teachers in the school, Billy acknowledged that knowing you won't always get your way, having personal conflicts with others, and being questioned about your thinking are all facets of teaching and will be part of his experience as a novice teacher next year.

Danny expressed this sentiment as well when he talked about an intern's work in the classroom. When asked to talk about previous experiences with interns, Danny commented that all interns can be expected to make the same mistakes. He chuckled as he talked about his approach to helping interns navigate classroom management issues. "You make the fire. We'll put it out. We'll put it out. This is how I would put it out, okay? You try to put it out. Oooh, explosion. It's okay. Let me step in. Let's help with that." For Danny, making mistakes and struggling through them was an essential part of the experience.

I, too, shared this perspective. My reticence in sharing my thinking with Billy was evidence of my belief in productive struggle. Because I recognized the possibility that Billy may see me as a source of authority, I was hesitant to provide too much guidance. Having observed Billy in his university coursework, I felt confident that he could and would make the most of his

resources and develop his own pedagogical thinking. To do so, I knew he would have to struggle to figure out which resources were most useful in doing so.

You Can Go Your Own Way. A result of the productive struggle was the opportunity Billy had to figure out his own pedagogical approach. In his individual interview, Danny commented that one of his biggest concerns about taking on an intern was the possibility of creating a "mini-me". Instead, he wanted to help Billy grow into his own way of doing things in the classroom. He viewed mentoring to be successful when Billy was able to separate himself pedagogically from Danny: "He's starting to feel comfortable in his own skin . . . I've seen him pick up his own personality and do his own thing and his own motivations and that's where I know it's like, okay, I've done enough. You're ready."

Echoing the theme of a shared vision, I also wanted to see Billy build his own pedagogical understanding and Billy recognized that I shared this vision for his fieldwork. He noted that I always insisted he was always in control of setting and meeting his professional goals. He also noted that I often refused to provide direct feedback or my own pedagogical thinking about a topic. Though I know he was often frustrated by my reticence, I expected him to think for himself and develop his own pedagogical thinking. Billy noted, "You said it multiple times. You didn't want your thinking to be my thinking. You wanted me to think for myself."

An example of this theme occurred during the last observational cycle of the year. In this cycle, Billy had chosen to focus on classroom management, specifically students' off-task or disengaged behavior. He asked that Danny and I both take observational notes and that I capture notes both by position and time. During data collection, both Danny and I captured a number of behaviors that did not align with the tasks Billy had assigned the class—students playing with their pencils, attending to work from other classes, fiddling with yarn, working a Rubik's cube,

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talking with their neighbors, etc. Billy's analysis of the data revealed to him three trends—students who were distracted by objects/others, students who were disengaged from class completely, and students who were using a manipulative to keep their hands busy while remaining engaged. Though Danny or I may have redirected some/all of these students, Billy found that he was not at all concerned by the students who used manipulatives to keep their hands busy as long as they were engaged in the lesson. During the post-conference, Billy talked about two specific students who wanted to play with a manipulative on Danny's desk. For one student, the manipulative was a way for him to "fidget" (Billy's word) while he was thinking or contributing to discussion. For the other student (who sat next to him), the manipulative was a distractor, keeping him from engaging fully in class. Billy talked about distinguishing between these two uses and differentiating the rules for these two students based on their needs and about how he handled removing the manipulative from the distracted student and the challenges that interaction presented.

A Missed Opportunity. Of course, no experience is without regrets. One of my regrets was not trusting Billy with my perspective. In my experience and from my research, I knew that many novices see the university representative as an expert. Their coursework exposes them to pedagogical reasoning that they often do not fully understand and as a result, they crave direct guidance from their university professors. As a "supervising professor" (the term used by the district), I was in danger of falling into the category of university professor. Because it was my goal to facilitate students' ability to build their own pedagogical understanding, I offered very little direct pedagogical guidance. Instead, I offered resources, I ask questions, and I encourage students to do research.

In retrospect, however, I believe my assumptions about novices were false in Billy's case. When talking about our co-planning/co-teaching experience, Billy said, "It was kind of cool to plan with you and see what goes on in your mind when you plan a lesson". He went on to say that when planning lessons with a mentor he wondered "When they're planning, what are the things that they're thinking about and how can I adjust my thinking to get to that level?" In Billy's case, I think his words revealed his ability to separate my thinking from his own and consider the quality rather than the content of that thinking. In other words, Billy did not seek to answer the question "How do I teach this topic?" Instead, he sought to answer the question "What kind of thinking should I do to develop a strong lesson about this topic?" Unfortunately, I didn't know that about him then. If I had, perhaps I would not have been so reticent in revealing my pedagogical reasoning to him and would have provided him greater opportunities for phronesis. In this way, working with Billy taught me a great lesson. My assumptions are not always productive in facilitating the professional growth of a novice.

In contrast, Danny did reveal his thinking on a regular basis, but Billy was able to separate his teaching from his mentor's. He was able to consider Danny's reasoning as one piece of a bigger puzzle as opposed to the "right" way to teach. Perhaps this separation is possible due to the intense day-to-day interactions between the two. Perhaps it is due to Danny's ability to vary his expectations between direct instruction and complete autonomy. Or perhaps it is some other aspect of their relationship I do not fully understand.

Effects of story sharing.

Separated by Opportunity. During his interview, Billy reflected on two aspects of his relationship with me. First, he noted that he didn't always get the feedback from me that he wanted. He would have liked to have heard what I was thinking about a particular strategy or

situation, but I was reticent in providing such pedagogical reflection. Second, I was steadfast in making Billy the designer of his own professional learning. He understood that I didn't want my thinking to become his thinking. Instead, I wanted him to develop his own ways of doing things.

As noted previously, Billy's relationship with me was not as close as his relationship with Danny. Though certainly that difference can be attributed in part to the day-to-day work Danny and Billy did together, it could also be attributed to my own pedagogical decisions about fieldwork. Because I removed myself from the pedagogical conversation in order to make room for Billy at center stage, I also removed myself as someone he would turn to for pedagogical consultation. Although I do not regret my work with Billy and Danny, I have possibly denied Billy a second opinion for some of his thinking this year by not sharing my thinking with him more freely.

United by Opportunity. Interestingly, Danny and I had a shared vision about what it meant for Billy to be successful—that he would find his own way. Danny, however, approached this idea from a different perspective. In his day-to-day interactions with Billy throughout the year, Danny shared his thoughts and experiences, slowly transitioning from providing Billy with direct feedback to asking Billy to make pedagogical decisions for himself. Perhaps because he was in the classroom with Billy daily, he understood better how to scaffold Billy's professional growth. Regardless, this daily dose of feedback nurtured a close and meaningful relationship between Danny and Billy.

Loosening the Lips. During our first triad interview Danny spoke more than he had in most of the previous conferences. In response to my questions about his background and his choice of mathematics as a teacher, Danny told Billy and me a lot about himself. He also listened to Billy and me as we talked about our backgrounds and interjected comments that related our

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stories. At one point, while I was talking about how difficult supervision had been for me the previous year, Danny stopped me to interject a story about his first year as a subject area leader (SAL). In telling the story, he paralleled his feelings of inadequacy and inexperience with my own. I believe he did so to make me feel better about what I viewed as my own inadequacies in my first year of supervision. He wanted me to see that we all feel like we're not measuring up sometimes, but that our efforts don't go unnoticed. I didn't hear it during our interview—at the time I just felt interrupted. But as I listened to the data, I heard the parallels and felt comforted by what he had to say.

Directly after that first interview, Danny began to open up in other ways as well. During the very next conference (which was just a few days later), Danny was much more involved in the conversations about the data and took the time to tell me how useful he thought it was. Danny had been trying to get Billy to see some classroom management issues for several weeks. Through the data, Billy was able to see all of the off-task behaviors he had previously been blind to. Danny was ecstatic. After that conference, Danny walked me to the office (where I would sign out) and talked at length about how useful he thought the data collection tool was and how excited he was that Billy could see what he felt like he'd been talking about for months. By sharing our stories, Danny and I were able to connect on a personal, collegial level that allowed us to share information as teacher educators in a more meaningful way.

What Could Have Been. Through sharing stories with Danny and Billy, I learned a lot about them. I cannot help speculating (and I do admit that the following thoughts are pure speculation) that this knowledge would have helped me to form more useful collaborative practices with them had we shared the stories at the beginning of the school year. For example, since I know Danny has such a strong sense of right and wrong, I could have more effectively

engaged him in data collection by helping him to see *my* right and wrong. Because observational data collection wasn't something Danny used on a regular basis to help interns study their own work, I could have shared with Danny the research that I used to plan these observations. In this way, Danny might have been a more effective data collector during observational cycles and might have even been able to use those skills in subsequent years.

In working with Billy, I wish I had taken the time to get to know the way Billy thinks about mentorship. By asking him many of the questions I asked during our interviews, I could have learned that Billy was most interested in the quality of pedagogical thinking, rather than the mimicking of pedagogical strategies. With this information in hand, I could have been more open with Billy instead of worrying that revealing my own pedagogical thinking would stifle Billy's ability to think for himself. Likewise, if I had shared my reasoning for not providing direct feedback during the first few observational cycles, perhaps Billy and I could have spoken more honestly about his pedagogical thinking. Billy's reaction during our interview was evidence that he would have been sympathetic to my needs and able to formulate questions that reflected his intention to improve his thinking.

The Meaning of Daily Sharing. Both Billy and Danny shared a similar connection in their "final stories". Billy spoke of the importance of the dinner table relationship and the way it contributed to his and Danny's connection because they shared lunch every day. Not only was lunch conveniently scheduled after his most difficult class, but it was also a time that they could joke around and share pieces of themselves that didn't have anything to do with teaching. Danny agreed with this idea and talked about the way his own family connects over the dinner table in the evenings and the impact his and Billy's shared lunches had on their relationship. In the

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sharing of their stories, they learned to see one another as humans—not just as teachers—and build trust for the day-to-day work of teaching.

A fictionalized narrative. This fictionalized narrative draws from one of Billy's observational cycles and is told from the perspective of the supervisor.

Billy, Danny, and I have our conferences in the hour before the school day begins in Danny's classroom. We gather in a kind of long line at the desks--Danny at his desk, Billy beside Danny at his desk, and me in a chair pulled up to the end of Billy's desk. These desks are situated at the far side of Danny's classroom and are secluded enough to allow us to have a fairly private conversation even though students use Danny's room as an early morning study hall. Apparently, the students can tell we're in a conference because they situate themselves in clusters on the other side of the long room.

During these conferences we usually address both the post-conference for the previous observation and the pre-conference for the next observation during a single meeting. Doing so reduces the number of meetings Billy and Danny have to accommodate and usually works pretty efficiently because we can use the results of one observation to help us plan for the next one. Meeting before school is the best timing for them and it works out well for me, too, because few of the other residents want to meet this early, so I'm able to fit in multiple visits to schools across our rather large district in a single day.

This semester, Billy focused almost exclusively on aspects of classroom management. He knew he needed to facilitate mathematical discourse, but found it hard to do so while monitoring all students' engagement. In the previous cycle, Billy had asked me to take observational notes about students' off-task behaviors and his response to those behaviors using a tool I had designed to track the physical classroom space. Using my tablet, I created a multi-page

document that repeated a panoramic picture of the classroom several times. During the

observation, I circulated around the classroom in five-minute intervals, making notes about

students' off-task behaviors. These notes were then shared with Billy and Danny for analysis.

During that previous observation, Billy had run into some additional roadblocks because

of the lesson. Billy was teaching a lesson about radicals that made use of the Pythagorean

Theorem to solve some of the problems, but the students did not remember the theorem from the

previous year. Billy was thrown off course by needing to reteach the Pythagorean Theorem in

the middle of his lesson.

> *Billy: Wow, they did not remember the Pythagorean Theorem! I didn't know what*
>
> > *to do.*
>
> *Melody: (chuckling) So much for assuming, huh? Did you teach that same lesson*
>
> > *later in the day?*
>
> *Billy: Yeah, I taught it again 7th period and it went much better. (chuckling) No*
>
> > *assuming.*
>
> *Melody: What was different?*
>
> *Billy: I used the Pythagorean Theorem in their bellwork to remind them how to*
>
> > *use it. Since I figured the point of the lesson wasn't for them to learn the*
> >
> > *Pythagorean Theorem, I just gave it to them and asked them to apply it to*
> >
> > *a simple problem so they'd be ready to use it in the radical lesson later. It*
> >
> > *worked a lot better.*
>
> *Melody: I'm glad to hear it.*
>
> > *So what did you think of the observational notes?*

Billy: Oh, man . . . (shakes his head) That was not good. There were so many kids

    off task. I didn't even realize.

Melody: What did you find most surprising?

Billy: Well, there were kids playing with pencils and yarn. Where did she get the

    yarn?! There was one kid working on stuff from other classes. There was

    also a lot more talking than I realized.

Melody: Do you think that was because of the Pythagorean Theorem stuff?

Billy: Maybe, but I don't know.

During this exchange, Danny is present, but mostly silent. He is listening to our

conversation, nodding along, especially when Billy talks about the off-task behaviors.

Occasionally, he attends to one of the students working on the other side of the room or turns to

his computer to make a notation or attend to email. When Billy speaks, he does so while looking

back and forth between Danny and me, including Danny in our discussion through eye contact. I

do the same.

Melody: Would you like to look at why students are off task next time?

Danny: I'm more concerned about Billy's responses. It's really important to be

    present and respond quickly to the students who are off task.

Billy: Yeah, okay. Could you take notes the same way again? I could focus more

    on the kids who are off-task while I'm teaching. You know, be more

    present, move around more, involve more of the kids. (He grins) And I'll

    make sure I pay attention to the prior knowledge they'll need.

Melody: Okay, that sounds good. So what I'll do is focus ONLY on the kids who

    are off task and your response to them. Okay?

Billy: Yeah, that sounds good.

During this meeting we also took care of housekeeping details and discussed what Billy would be teaching, but this exchange provides context for the observation.

The observation took place the following week. Billy introduced me to his students: "This is Ms. Elrod. She'll be circulating around watching during this class period. She might ask you a few questions, but she's here to help me be a better teacher, so don't worry too much about impressing her." The students chuckled and settled in to work.

As Billy taught a probability lesson, I wandered around the room, looking over students' shoulders. I used my observational tool to make notes about the class. At the beginning of each five-minute interval, I made a quick note about what "on-task" behavior looked like. Then I jotted down notes about any student I observed as being off task and what (if any) response Billy made to that behavior. At the end of the fifty-minute class period, I saved my notes and spoke briefly with Danny and Billy to confirm our post-conference for that Friday.

That night at home, I uploaded the notes I'd taken during class to the OneNote file Billy, Danny, and I were using to house the raw data from Billy's residency so that we would all have access to them. I also transcribed my hand-written notes. I tend to write in cursive when I'm taking observational notes—it's just quicker for me—but my handwriting can be shaky at times, so I know transcription is the best way to make the data accessible to others. The notes end up looking like this:
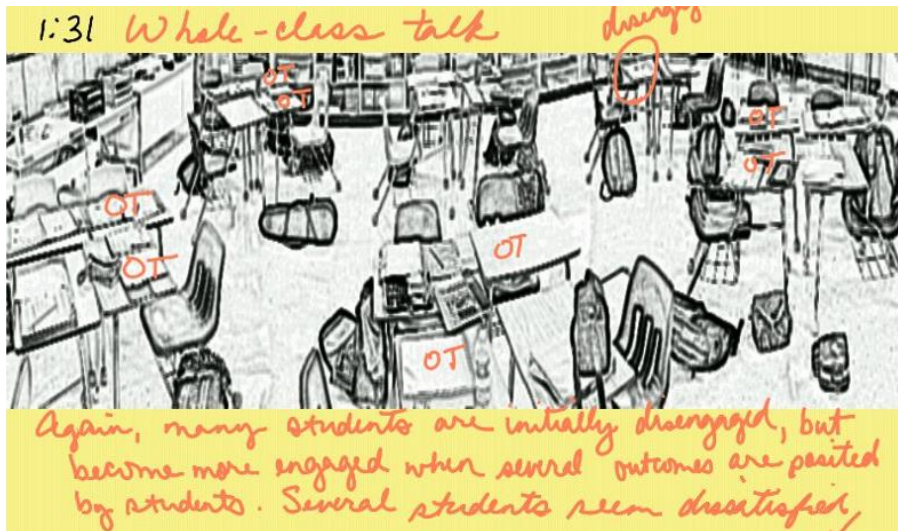
Figure 10. I created a data collection tool for classroom observations.

On Friday morning, I went back to Jackson for our post-conference. As I pulled into the parking lot and began putting up the sun screen for the windshield, I noticed Billy pulling in to the teacher lot. I gathered my things and met him at his car. The teacher lot is on the opposite side of campus from Danny's classroom, so Billy and I talked a little about his observation as we walked in together.

"So what did you think?" I asked.

"Ugh," Billy grunted, shaking his head. "Not good."

"What do you mean?" I asked, surprised.

"There was so much off task behavior that I didn't notice. Sometimes I wonder, was I even there? How did I not notice? Where was I?" He pulled open the office door so that we could sign in.

"I think you're being too hard on yourself, Billy." I noted as I signed in on the computer and took my visitor's badge.

"I don't know about that." He said, as he collected his badge and we left the office to go to Danny's classroom. "It seemed like there wasn't a single five-minute period where someone wasn't off task."

"Well, of course there wasn't!" I exclaim, bumping him in the shoulder, "They're middle schoolers. Of course they're off task sometimes. The important question is whether or not there were any trends."

As we entered Danny's classroom, we both greeted him and set up for our conference. Billy put his bag on the counter behind his desk and dragged over the chair I usually sat in while I got my computer set up with my phone's Wi-Fi Hotspot so I could take notes during the conference. Once we got settled, I asked Billy to talk a little about what he noticed in the data.

Danny said he hadn't had a chance to look at the data from the observation, so I pulled it upon my computer and passed it to him to look at. Danny looked surprised. "This is really neat; the way you can see which students are off task throughout the class period. The pictures are really helpful."

As Danny scanned the notes, Billy talked about his take on them. "I guess I still need to work on classroom management. There was a lot of off task behavior." Billy commented, looking grim.

"It's about with-it-ness," Danny commented. "It's like being everywhere at once and choosing where you are needed. It takes a long time to develop with-it-ness."

"I'm glad you said that, Danny," I said, smiling. "Billy needs to be more present, but it's important for him to remember that this is just the first step--the noticing."

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"I think the tablet really helps," Danny commented, referring to the electronic tablet that was used to control the SMARTBoard. "Being free to walk around the room while you write on the board really helps you to be present."

"Yeah, my handwriting still needs work, but I'm getting there," Billy said. To use the SMARTBoard Tablet, the teacher has to look at the board while writing on the tablet. It can be a little disorienting.

Chuckling, I agree. "Yeah, it can take some getting used to, but it's really cool that you're willing to work at it. Danny's right. Having that technology in your hands makes a huge difference in your presence in the classroom."

Billy laughed. "Of course YOU would be excited about the technology, techno-queen."

Danny and I laugh, too, because he's right. I do use a lot of technology. My bag always contains my Chromebook, Samsung Note tablet, and smartphone along with several other gadgets I'm addicted to. In fact, I was also teaching an instructional technology course that semester. I do tend to root for technology whenever I can. "Technology aside, though—maybe not too far aside—what else did you notice in the data?"

"What do you mean?" Billy asked.

I clarified. "Well, were there any trends over the course of the entire class? Specific students or activities that were different?"

"Oh, I see. Yes. It seemed like the back table had a little more difficulty focusing than the others. Danny's been saying it, but I just haven't seen it before now." As Billy speaks, Danny pumps a fist in the air and grins. Billy adds, "I also noticed that the more students I involve in the discussion, the less off-task behaviors there were."

Now it's my turn to cheer. "I noticed that, too," I said. "It was interesting that the students seemed to be more enthralled by their peers' answers than by answers you gave." I paused, grinning. Billy and I have talked about this before--about letting students take ownership of the mathematics.

Billy returned my grin. "Yeah, yeah."

"So what do you do about that?" I asked.

"I'd like to do better with classroom management, have less off-task behaviors." Billy responds.

"What does that mean? What does that look like?" I ask.

"Right," Danny interjected, "let's be more specific. Are you trying to shoot for NO off-task behaviors?"

"Well, I guess ideally, yeah," Billy says, thinking, "but I guess maybe that's not realistic, is it?"

"No, not really. You're always going to have some students off task." Danny replies. "The question is what you do about it and how it impacts learning."

We spent the remainder of this conference talking about setting reasonable, measurable goals. Billy wanted to reduce off-task behaviors, so we talked about what qualifies as an off-task behavior, the frequency of those behaviors, and which students were most likely to display them. We also talked about how Billy could involve students who had a difficult time staying on task in ways that would prevent off-task behaviors.

At the end of the conference, we scheduled our next observation and took care of a few housekeeping items. As I was packing up to leave, Danny called me back. "Wait a minute, I'll walk to the office with you." This request was surprising to me. Danny had never been reticent or

avoided contact with me, but he also hadn't ever sought me out. This walk to the office was new

territory.

As we threaded our way through students and teachers heading to first period, Danny

talked about the data I collected during the last observation. He was so excited. "I've been trying

to get him to see the classroom management issues for a while now, but he just couldn't see them.

Your notes really worked! This is the first time I feel like he's been able to see what I'm saying."

Danny related a conversation he'd had with one of Billy's previous collaborating teachers who

was also worried about Billy's classroom management. "It was like she thought Billy wasn't a

good teacher, but I know he is. He's great. He connects with the kids and he knows his math and

he's creative and enthusiastic. He just needs to settle the classroom management thing. Maybe

now that he can see it, he will." When Danny and I parted company at the office, he was excited

about this new phase in Billy's residency and I was excited that Danny and I were connecting as

teacher educators.

Case 2: Victoria, Ann, Cam, and Melody

Victoria's residency was a little different from her peers'. Instead of a single

collaborating teacher, Victoria worked with two school-based mentors, Ann and Cam. Ann and

Cam had been teaching mathematics at Busch Middle School in adjoining classrooms for several

years. Between the two classrooms, Ann and Cam taught 6th, 7th, and 8th grade classes, including

regular mathematics, advanced mathematics, gifted classes, PreAlgebra and Algebra. Because

neither felt they had the time to devote to a full-time resident, Ann proposed the idea of the two

of them sharing a resident. As a result, Victoria split her time between the two classrooms over

the course of an entire year, sometimes splitting her days, other times splitting her weeks, and

eventually dividing her time by instructional units. Throughout the year, I observed Victoria in

one classroom or the other and the four of us met together for conferences before and after each observation.

Busch Middle School was considered a "reverse magnet" school, meaning that the school offered special magnet programs for district students, but made a point to collect those students from throughout the county, bussing some students from as far as two hours away to get to school. Some educational researchers might call this kind of setting "forced integration" because it created a very diverse demographic for a school located in an area populated by predominantly Caucasian families with higher socioeconomic status.

Individual and collective stories.

Victoria's story. Victoria entered her residency with excitement about being on her own in the classroom without a peer partner. When she learned that she would have two CTs, however, she was worried about how she would navigate her residency. Who would she report to? What would her responsibilities be? How would she split her time? The beginning of the school year was pretty frustrating. Between the two CTs, encountering twice as many students as her peers, working with a much more demanding supervisor, and keeping up with her university coursework, Victoria often felt overwhelmed.

Early in the school year, I was concerned that Victoria might be overwhelmed by her placement, so I asked her to meet with me outside of her normal school hours so that we could get to know each other better. She explained some of her frustrations and I provided her with some useful verbiage and other strategies for negotiating her schedule and responsibilities with her CTs and offered to be involved in the conversation if she'd like. Rather than use me as a mediator, though, Victoria negotiated her relationship with her CTs on her own. Over the course

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of the school year, she negotiated her schedule and responsibilities with her CTs several times in an effort to find the best fit.

As a cautious person and one who avoids conflict, Victoria chose to address some frustrations and learn to live with other frustrations. While talking about her frustrations during our individual interview, Victoria commented, "Then after I got through, like, my complaining, being upset about it and stuff, I realized, it was like, okay, I can't go through the rest of the semester like this. I'm going to have to, like, suck it up and figure out a different way to handle it. So I think that's when I kind of started asking you more questions and stuff."

Victoria made use of her mentor resources during her residency by co-planning with all three of her mentors (Ann, Cam, and me), but ultimately, Victoria wanted to become independent and autonomous in the classroom. She sought to engage her students and better understand their thinking about mathematics by asking them to teach one another, observing their group work, and trying new instructional strategies that would get them up and moving around the classroom. Victoria considered her residency a safe place where she could try new things.

She also made use of pre/post-conference meetings to ask content, pedagogy, and organizational questions. Even when her mentors would wander off course with their conversations, Victoria was able to pull the conversation back by patiently waiting for a break in the dialogue to repose her question or redirect our talk. By the end of her residency, she would even interrupt if she needed to and wasn't as acquiescent when she herself was interrupted. Victoria learned that her mentors, though enthusiastic about supporting her professional growth, were often easily distracted by their own conversation. She seemed to accept this flaw with amused patience and adjusted her approach to get her questions answered.

Despite her willingness to work with (and learn about) her mentors, Victoria did not develop close bonds with any of the three. In post-graduation interviews, Victoria revealed that she had some conflicts with her CTs that she decided not to address during her residency. In particular, she disagreed with some of the pedagogical decisions made by one of her CTs, but did not feel comfortable engaging in discourse about those disagreements. As a result, her CT began to see her as "less present" in the classroom and attempted to talk with Victoria about this concern. Because she wanted to avoid conflict, though, Victoria said nothing. She held in the frustration and "put on a happy face until the day was over" and she was able to reach out to a family member to vent her frustrations.

Victoria acknowledged that her avoidance of conflict created an emotional and professional distance between her and her mentors. In fact, Victoria did not reveal the depth of her frustrations until after she had successfully completed her program and secured a teaching position at a local middle school. In these post-graduate interviews, Victoria was much more forthcoming about the conflicts she had with her CTs and her explanations about why she didn't address them during the year. She revealed that she was always acutely aware of the power dynamics in her relationships with her mentors, that they were each "half responsible for whether I graduate or not." When we talked about the encouragement and support she received from her mentors, she commented, "I hear it, but it's always that, at the end of the day, I have to get a grade for it. . . I didn't ever feel like I was in danger of failing or anything, but I didn't want to cause a conflict." Though she felt able to talk with her university supervisor (me) about these frustrations, she felt that doing so would create waves. "I didn't want to spark anything. I wanted to get it over with. I wanted to be as comfortable as I—like, I don't like uncomfortable situations.

And I felt like if I would have brought that up, then we'd have to like, talk about it . . . So I was like, I'll just suck it up and you know, wait it out."

Though there were aspects of Victoria's residency that were frustrating, she has no regrets. When I asked her what she would recommend a like-minded resident do at the beginning of her residency, she talked about finding ways to accommodate others' personalities and organizational styles. For Victoria, it is the task of the resident to make adjustments for the personalities of her mentors. As the person with the least power, it is best just to "suck it up and do it and you'll be alright".

Ann & Cam. *Though they certainly have their individual views, Ann's and Cam's stories are intertwined. I thought for a while about whether I should tell these stories as a single narrative or divide it into two distinct stories. After reflection, I feel the most honest way to proceed is to tell both the individual and joint stories with the understanding that the individual stories are contained within their joint narrative. As such, both Ann and Cam received the other's individual story during member checking. Due to their strong collaborative relationship and their openness with one another, with me, and with Victoria, they were comfortable with this first step.*

Ann and Cam entered into this fieldwork experience with the expectation of "sharing" a resident. Neither felt she had the time to devote to a resident for the entire school year, so they offered to split their duties in response to the university program coordinator's request for CTs. Both Ann and Cam talked about their shared history together at Busch and the unique physical layout of their adjoining classrooms. They felt these two aspects of their work made them ideal candidates for sharing a resident.

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In their reflections on the experience, Ann and Cam (both as a unit and separately) commented on the benefit of having Victoria in their classrooms. They felt it benefited not only their students, but their own teaching. Both teachers were also mindful of their responsibilities outside of the fieldwork experience. During conferences, one or the other would often need to attend to other business during part/all of our conference times. Though these absences may have seemed disruptive to an outside observer, the ease with which each member of the collaboration was able to attend to her individual responsibilities created a sense of respect for one another's teaching roles and led to more reasonable goal setting.

   Ann's story. Ann entered the teaching field from the corporate world. As such, she didn't receive the formal internship that Victoria was experiencing. Ann felt that it was important to provide a new teacher with the kind of support she herself would have loved. "I remember my first year of teaching. The district had a great program for new teachers. I was supposed to have somebody that I was paired with for the entire year to help me. Maybe due to turnover, maybe because the principal was a new principal and had inherited a tough school, maybe something else, the "experienced teacher" who was assigned to me was a 2nd year teacher. She sat down with me before school started and said, "If you need anything, let me know." That was all I saw of her the entire year! How was I supposed to know what I needed? That was why the district provided support. It was a really tough year." (Ann, 2016, interview). Ann wanted to decrease the first-year frustrations a new teacher usually experiences by providing Victoria with guidance during her internship. Though this was her first experience as a CT, Ann wasn't shy about jumping in to guide Victoria from the very first day. She enthusiastically participated in the co-teach model promoted by the university program and was fully engaged in conferences throughout the year.

Ann has benefited from her time with Victoria. Observing Victoria and co-planning with her exposed her to newer strategies and theories. "I think it's made me sharpen my sword a little bit," she commented while talking about the impact of this fieldwork experience on her teaching. Ann also collected data on her students' thoughts about Victoria's presence in the classroom. Most of her students appreciated having a second perspective during instruction.

Throughout the year, Ann viewed the fieldwork collaboration as a team effort that included Victoria, herself, Cam, and me. Though she was comfortable working one-on-one with Victoria and as a team with Victoria and Cam, Ann regularly looked to me for structure in the experience. She often asked, "What else do you need from us?", a question that showed a separation between Busch and the university, but also provided evidence of the way the university program offered structure to school experiences.

Cam's story. Cam had been a teacher for 17 years. She viewed it as her true calling and is comfortable with the mantle of "teacher". She agreed to share an intern with Ann because she believed she had expertise that could be beneficial to a novice teacher. When speaking about the responsibilities of being a CT, Cam commented that co-teaching, co-planning, and collaboration are all parts of the job: "Collaborating, mentoring each other is a part of the field anyway." It's what all teachers should already be doing. As such, she didn't expect taking on an intern to impact her year in any negative way.

When Cam talked about the co-teach models, she focused primarily on the model "one teach, one assist" as opposed to those models that involved both teachers sharing the presentation of the lesson. During the class periods in which Victoria was teaching, however, Cam did feel comfortable interjecting additional information or perspectives into Victoria's lessons. It's worth

noting, too, that this type of talk was not limited to Victoria's lessons. Cam also interacted this way when co-teaching with one of her peers during her first period shared lessons.

Cam commented several times that she felt like Victoria's presence brought another set of eyes, ears, and hands to the classroom, which was nothing but a benefit to the students. "I know I can feel the load lightened," she said. With a lighter load, she felt she could have more impact on the students herself. In fact, she viewed Victoria's presence as an important part of the teaching dynamic in her classroom. "When she's not here, I have the job of two people."

Melody's story. As both participant and researcher, this story was difficult to write. As a supervisor, I approached this collaboration as I did the others. I was focused on providing the resident the support she needed to set and achieve her own goals by establishing open and equitable communication among all the educators involved. I wanted to make sure Victoria's voice was heard, especially since she would have two collaborating teachers. Like Victoria, I wondered how it would all work. Would one CT emerge as the dominant personality? Would each CT assume the other was dominant and be disengaged in the process? Would Victoria be overwhelmed by two CTs or under-supported due to overlapping duties? I saw my role as managing these concerns so that everyone's voice was heard and we developed a shared vision of supporting Victoria in setting and achieving her goals.

Throughout our collaboration, however, I was continuously surprised by the involvement of Ann and Cam. In most of my fieldwork collaborations, I have worked hard to engage classroom teachers in the teacher preparation aspects of fieldwork and to approach them as equals so that my presence is not seen as an evaluative one. In many of those cases, conferences and observations usually involved me facilitating discussion by asking for input from the CT. In this case, however, both Ann and Cam were forthcoming and fully engaged during pre- and post-

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observational conferences. They both seemed genuinely invested in Victoria's progress and willing to negotiate their roles to facilitate that progress. I was frankly impressed with their involvement. Indeed, when we were given the opportunity to talk about our collaboration at a national conference that would require days away from school, both Ann and Cam readily participated in the preparation, travel, and presentation. I was really grateful to be working with them.

Victoria, too, was a willing and active participant in our collaborations. Because she tended to listen more than she talked (a skill I envy), I saw my role with Victoria as one of mindfulness. Early in the first semester of her residency, I sensed that I might not be hearing Victoria's voice during our conferences. With so many experienced voices in the room, it is easy for the novice to be overwhelmed. I asked Victoria to meet me for lunch so that I could get to know her a little better. As we talked that day, Victoria revealed some concerns that she had not expressed during our conferences. In particular, she was concerned about managing her time in the two classrooms, an issue we would revisit throughout the year. During that first conversation, I encouraged Victoria to talk with Ann and Cam about her concerns and her preferences and offered to mediate that conversation if she felt uncomfortable. Though Victoria did not need me to act as mediator, she did begin renegotiating her time with her two mentors. I saw this initial renegotiation as a cornerstone of Victoria's relationship with her mentors. She was able to establish open communication with all three of her mentors and talk about the issues that were important to her.

I felt really positive about my relationship with all three collaborators until March (mid-way through the second semester) when the CT of another resident approached me about concerns Victoria had been having about her fieldwork. These concerns were not ones I had

heard Victoria express to me, and I wondered why. I was caught in a quandary. I needed to make sure Victoria had everything she needed to succeed, but I did not want to betray her confidence with a mentor outside our collaboration. I also knew this particular mentor to be one who often jumped to conclusions without having all the information, so I was not confident I was receiving an accurate accounting of Victoria's feelings. I decided to provide Victoria with more opportunities to provide feedback about our collaborations. I arrived early for several conferences and observations and had private discussions with Victoria before meeting with Ann and Cam and touched base with her before or after residency seminars at the university. I regularly asked questions like, "How do you feel?" and "How are things going?" I did not feel comfortable confronting her with the concerns conveyed by another CT, but I wanted to make sure she knew I was highly invested in her fieldwork.

Just before one of our last meetings (the pre-conference to her last observation), Victoria expressed concern about her schedule for the remainder of the semester as the students were preparing for testing. During the conference, I asked her to speak a bit more about those concerns. Victoria said that she'd like to split her time between Ann's and Cam's classrooms so that she could be involved in test preparation, but she felt overwhelmed by the number of classes she felt responsible for preparing when she split her day between the two classrooms. Ann was quick to say that Victoria need not feel any obligation to prepare for the classes unless she had specific lessons she would like to prep. Cam agreed with this sentiment and outlined a one-teach-one-assist model of coteaching that would make Cam responsible for course prep and Victoria responsible for working with individuals and small groups during instruction. Victoria seemed mollified by this arrangement, but during our final interview of the semester, Victoria's biggest concern for the year was the overwhelming number of course preps that comes with having two

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collaborating teachers. Though I thought the arrangements made during our last pre-conference would satisfy Victoria's concerns, we were clearly still missing something in our collaboration.

This knowledge plagues me still. I was so proud of our collaborative efforts on Victoria's behalf--so proud of the way Ann and Cam interacted during conferences and so proud of the way Victoria was able to renegotiate her time between the two classrooms. As it turns out, though, I missed something. I didn't hear Victoria as well as I thought I did. Somewhere, I failed to hear her, failed to support her. These feelings reveal my own perception of my role in this setting--as one who is supposed to KNOW.

As I have analyzed these stories, I have struggled to come to terms with the knowledge that I missed something and Victoria's experience was not as wonderful as I had thought. When I shared these struggles with Victoria during our last, post-graduation interview, she was quick to say that I did a great job of being available and supportive, but that she didn't like conflict. She said she knew that if she brought her problem to me that I would want to find a solution. I was shocked that she felt that way. Unable to stop myself, I laughed and said with my tongue in my cheek, "Oh, those solutions. What a terrible thing to want!" She laughed too and rolled her eyes. She just wanted to get to graduation and get started in her own classroom. As someone who has worked towards graduation several times and taken a few shortcuts when I could, I have to respect her right to prioritize her concerns.

The "Triad".
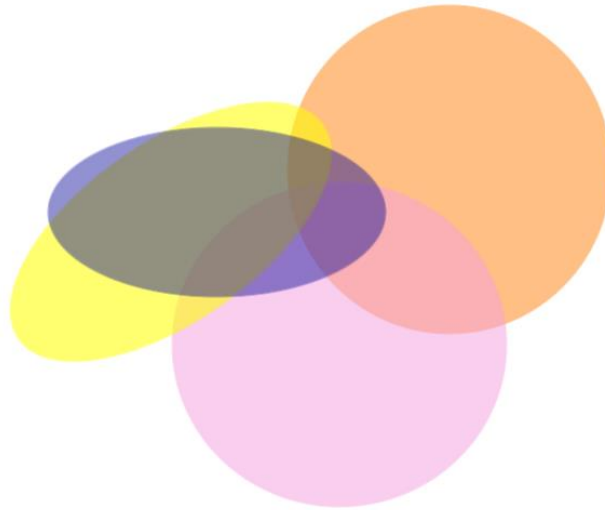
Figure 11. The Case 2 Triad can be represented by the intersections of circles and

ovals.

Victoria's triad was involved the most complex relationships I encountered in my

supervision that year. Rather than attempt to construct simple descriptions of each person's

complex involvements with one another, I have described our relationships in free verse, which

better captures the essence of each of our collaborative experiences.

In Figure 11, Victoria is represented by the orange circle. A large part of her experience

was hers alone, not shared with the group. Victoria's experience, as it relates to her mentors,

might be encapsulated this way.

I am frustrated by you. I trust you.

I will work with you.

I will use your experience.

I will rely on myself to ask the right questions.

I will rely on myself to make the best of this situation.

My collaborative experience is represented by the pink circle. Like Victoria, a lot of what I experienced I kept to myself. I did not reveal my misgivings about our collaborations, but instead only showed my collaborators the parts of my experience that made me proud.

I want to do this right.

I want to do this together.

I want to hear everyone's voice.

I am content with the talk,

but I am unsure I am really hearing you.

Ann and Cam are both represented by the overlapping ovals. Ann's oval (blue) overlaps more strongly with Victoria's and my circles. Ann, Cam, and Victoria all considered Ann to be the "primary" collaborating teacher and as such, her voice was heard more often in conferences and she gave Victoria more autonomy in her classroom.

I didn't have anything like this.

I want to give back.

I have my list and we'll complete it together,

but I'm confident you'll be fine no matter what happens.

Cam's involvement, represented by the yellow, diagonally situated oval, is more strongly tied to Ann's oval than it is to Victoria's or my circles. She mentioned several times over the course of the school year that it was Ann's idea to take on an intern and made it known to Victoria that Ann was her primary mentor at the school. Ann and Cam's relationship was solidified after so many years of working side-by-side at Busch. Given their adjoining classrooms and the way students were often passed from one to the other as the years progressed, it is understandable that they felt most connected to one another in this collaboration. As

illustrated by the diagram, though Victoria and Cam did have their own relationship, Cam had little interaction with Victoria or myself that was not filtered through her relationship with Ann.

I'll fit you into my classroom.

I'll fit you into my world.

Not much will change.

I know you'll catch on.

The four of us did have a triad relationship, as shown at the center of the diagram. It is fair to note, however, that our collaboration often became more truly triadic (meaning three, not four) because of the nature of Cam's relationship with each of us. It is interesting, too, that no one of us became the center of the collaboration. Though we were connected because of our work with Victoria, Ann and I often talked on our own and made connections that were not directly tied to the collaboration. Likewise, Victoria and I often spoke about topics not directly related to her work. So, though I despaired of the incomplete stories we shared, we were successful in building a collaborative relationship in which no one person took center stage.

Opportunities for phronesis. Throughout data collection, Victoria shared what she learned by observing and working with her mentors in the classroom. Many of these lessons took the form of change—an evolution of her pedagogy and professional disposition.

Learning to Let Go. Through her explorations in both classrooms as she planned with and taught with her mentors, Victoria explored letting go of the knowledge construction in her classroom. She used group work, station teaching, and other teaching strategies to encourage students to think for themselves and developed tools to gather data about their thinking. Rather than relying on tests and quizzes, she started using Exit Tickets, student conversations, and observations to better understand students' thinking. It is evident from our conferences,

interviews, and observations that Victoria gathered these strategies from all three of her mentors and modified them to fit various situations, which is the very definition of phronesis.

Assessment. During an individual interview, Victoria talked about the change in her perspective on assessment, specifically with regards to chapter tests. At the beginning of her residency, Victoria felt that tests showed whether or not students understood the material and whether or not the teacher taught the material well. As the year progressed, however, she began to see how the material often "clicked" for students after the test. She expressed frustration that her CTs seemed to "teach to the test", providing review sheets that looked just like the test. "What good does that do?" she wondered. Then she realized that Ann and Cam were assessing the students in other ways. "Listening to their conversation and application . . . It's not just the test." She has learned from her CTs that the test should not be used as a "gotcha"—a way of catching the students out for not studying or not paying attention. Instead, teachers should be paying attention to more than just the test. She began to view the test as a necessary way to close out one chapter and begin another, but not as the central measure of her students' understanding or of her own teaching.

Setting Professional Goals. At the beginning of the school year, I set an expectation that Victoria would be responsible for setting her own professional goals. At first, like most novices, she struggled to do so and was supported by her mentors in setting goals. As the year progressed, though, she was able to use her experiences with her three mentors to set goals for her observational cycles and to fill in what she has perceived as gaps in her work with her mentors. For example, when Victoria felt that direct instruction was not engaging the interest of students in one class, she expressed those concerns to me (who happened to be observing that day) and worked with her to redesign the lesson to better meet the needs of her students. By the end of the

school year, Victoria was setting her goals independently and without prompting and was able to determine the observation method she'd like to use to collect data about her teaching.

Along with setting goals, Victoria engaged in self-assessment throughout her residency. With so many mentors, it would be easy for feedback to become overwhelming. It was essential that Victoria be able to synthesize her mentors' ideas with her own to assess her professional growth. Evidence of Victoria's ability to both set goals and assess her achievement was found in the evolution of her reflections throughout the year. For example, in her final observation cycle, Victoria used video data collected during instruction to assess her ability to engage students during instruction. Victoria reflected that she wanted all students to be engaged in the classroom. In order for them to be able to do so, she noted, she would have to connect to her students more meaningfully so that all students would have equitable opportunities to share their understanding.

Developing Professional Relationships. During her residency, Victoria was mentored by three very different educators: Cam, who used a one teach/one assist model of co-teaching; Ann, who saw her as an equal teaching partner; and Melody, who expected her to set goals and identify the resources she'd need to achieve them. In all of these mentoring relationships, Victoria was able to manage her expectations of each and decide which resource was the best for various situations.

As evidenced by my story above, I was very frustrated with this particular case because I was unable to perceive and manage the frustrations Victoria experienced during her residency. Instead, Victoria made these decisions on her own, a skill I can recognize as valuable for her teaching career even as I struggle with my own impotence. She was able to identify and respond to the amount of power she was given in each of her relationships with her mentors. By working with three such different mentors, Victoria was able to negotiate and renegotiate relational

norms, a skill that will certainly continue to be of use to her in the first years of her teaching career.

Effects of story sharing.

A Missed Opportunity. During an early interview, Victoria and I talked about the feedback I gave during the first half of her residency. She expressed frustration about the lack of direct feedback during the first several observational cycles. I explained to her that I want to establish a respectful collaborative relationship and rapport before providing feedback that could affect not only her, but her collaborating teachers as well. Victoria was surprised by my response. She said she hadn't considered the impact that providing direct feedback could have on her collaborating teachers and on our relationships. Hearing my story helped her understand why I would want to be careful. She noted that if I had shared this information with her during the first half of the year, though, she would have experienced less frustration.

This issue arose again during the final triad interview as we discussed the interactions of another triad we had observed at a recent conference. In particular, Victoria noted the power issues and judgements that arose when they spoke of their work together. I shared some of my own experiences from my first year of supervision to illustrate the way my own judgements, whether voiced or unvoiced, had played a negative role in relationship building. "If I'm sitting here judging you, whether or not I say it out loud, you can feel it. Right? You can feel when somebody doesn't respect the way you do things or thinks that what you're doing is wrong." Ann said that she hadn't considered about the way feedback might affect our relationship either. "On the one hand I'm sitting here thinking, I would be fine with input to make [a lesson] better, but I would also think it would need to come after we have a relationship and respect. . . I get so frustrated in life with people who judge and are critical."

I wonder, though, how this conversation would have changed the development of our relationships if we had addressed feedback during one of our early conferences. Considering Victoria's reticence to share her own judgements of her CTs' teaching and mentoring styles, I wonder if such a conversation would have made it easier for Victoria to either let go of her judgements or address them more openly with her mentors. Would she have been able to build the trust relationships needed to address difficult subjects?

Flexibility. In the video observation of one of our pre-conferences, the four of us teased one another about the calendars and files and technology we used to organize. In this joking conversation, we all talked about not just our organizational systems, but the responsibilities we all carried in conjunction with this collaboration. Getting to know each other this way helped us to be more respectful of our demands on one another's time. For example, Cam joined that particular observed conference about halfway through because she needed to leave campus for a few minutes. During another conference, Ann graded papers while we debriefed an observation that had been done in Cam's classroom. In yet another example, Ann, Cam, and Victoria met without me for a post-conference because I was ill. By sharing stories with one another and revealing the pressures we each faced during the semester, we were able to be flexible in our expectations of one another.

Not the Whole Story. It is hard to admit that this collaboration was not as open and equitable as I believed it to be. In fact, I imagine we all perceived it to be a better collaboration than it was and that the stories we shared revealed more to each other than they really did. As evidenced by my own individual story, I was really proud of the work we had done together. I felt like everyone was comfortable with the relationships we had formed and the way those

relationships supported Victoria's growth. I felt like I saw evidence of that comfort when Victoria was able to renegotiate her responsibilities with her CTs.

Ann and Cam also seemed comfortable with our relationships. During their paired conversation, Cam noted that working with Victoria fit smoothly into her expectations of herself as a teacher. Collaboration and mentoring are already part of the job, so the time she spent with Victoria was not any different from the time she would have spent with any other teacher. Ann noted that Victoria's presence in her classroom helped her to "sharpen her sword" and keep abreast of the newest theories in teaching. She seemed very comfortable with both sharing her pedagogical tools with Victoria and receiving new ideas from her.

Victoria herself noted that she made decisions about what she would and would not share based on how she felt that sharing would affect her grade and her chances of graduating. She didn't want to rock the boat, so there were some things she just didn't talk about with us. Regardless, she seemed content with that decision and felt that those decisions were sound given what she knew about Ann and Cam and myself. In an effort to learn what we could have done differently, I asked her several times in several ways what she would do differently if she had it to do over again. She replied each time that she wouldn't do it any differently. Victoria saw it as a good experience, but accepted that she couldn't engineer a situation in which everyone's personalities mesh, so she had to do what she could do to be comfortable in what was, after all, just a temporary situation.

In our individual and group interviews, each of us related how we felt about certain events that occurred during our year together. These stories provided further evidence that we did not really tell the whole story, even when we intended to. After telling these stories that could have been shared (should have been shared?) earlier but weren't, there were reactions of

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surprise and regret. The first instance of this surprise was during my first interview with Victoria when I explained to her why I had not given direct feedback during the first several observational cycles. She had not considered the effect of feedback on our relationships and wished she had known that earlier because it would have reduced some of her stress. Another example of surprise came during our last triad interview when Victoria spoke about how overwhelming it was to have so many course preps during the year. Ann noted, "Because in my brain I'm thinking, when you're with me you're doing my stuff and when you're with Cam you're doing her stuff, but I didn't, I didn't realize that there's that overlap. I should have, but I don't think there was experience in the past that would have helped me understand that." She wished she'd considered Victoria's experiences more carefully so that she could have been sensitive to her needs.

　　A fictionalized narrative. This fictionalized narrative is told from the perspective of the resident. It was constructed from two main sources: direct quotations from the Victoria's written story about her school mentors (Ann MacMillian and Cam Carter) and the stories Victoria told orally during interviews and observations.

　　I am not one to easily open up to people, I typically sit back and observe before I am willing to fully open up in most cases. Having two collaborating teachers (CTs) and a supervisor made it even more difficult for me to open up. I felt like all these people were partly responsible for me getting through this year and to graduation. I didn't want to step on any toes, so I had to proceed with caution given this particular situation.

　　At times during my residency I felt like my personality meshed better with Mrs. Carter than Ms. MacMillian. In a weird way, these connections made me uncomfortable. I thought, well, I don't want to make one CT feel like I don't like her as much and so on. I also figured out which

curriculum I liked the most and of course that's where I always wanted to be, but I felt like I had to maintain a balance between the two CTs.

There were times I felt Mrs. Carter didn't see me as an equal, while Ms. MacMillian always wanted me to feel like an equal--like we were sharing the classroom. I often just felt like an assistant to Mrs. Carter rather than a co-teacher.

There was a moment when Ms. MacMillian and I had an uncomfortable conversation initiated by her. She felt as though I wasn't really present in the room although I was there. And I could see why she felt that way, I didn't really express my true feelings because once again I didn't want to step on any toes and I had to get through the rest of the year with her. Truthfully, I got to the point where I just didn't want to be there anymore. I was exhausted. Our teaching styles were just so different and I felt like sometimes she didn't always do what was best for the students, but instead did what was convenient and best for her. But how do you say that to someone? So I didn't say anything at all, I just went to the restroom and cried mainly out of frustration and came back and put on a happy face until the day was over and I was able to call my sister and talk to her.

Sometimes I would talk to one of the other residents. She and I were placed in the same school, but she only had one CT and she seemed really comfortable with her. When I would talk to her, I'd just vent. Sometimes I'd vent in front of her CT, but I didn't worry about her CT telling anyone. I knew she wasn't going to try to solve the problem, so I didn't have to worry about talking in front of her.

That's when I got more quiet. During our conferences, I would ask questions about the lesson or about classroom management or about engaging my students, but I didn't get too deep. I didn't want to talk about anything that could lead to a debate between my teaching style and

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Ms. MacMillian's. I knew I could have talked about it. They wouldn't have told me no. I knew

Melody would help me with it--she always seemed willing to face problems head on--but I didn't

actually want to talk about it. I didn't want to risk making anyone mad at me or even

uncomfortable with me. I thought, this is a temporary situation. It will be over soon and then I

can do what I want in my own classroom.

Looking back, I know I didn't have to worry about my grade. Melody and my CTs said all

the time how much they believed in me. They were excited for me and wrote me letters of

recommendation. While we were talking about the year-end assessment, Melody even told me

that she already knew I would graduate. She said that she and Ann and Cam already knew that

they trusted me to teach on my own next year. The year-end assessment was just a formality, one

that was supposed to help us talk about my professional goals. So I knew I wasn't in danger of

not graduating. But still, I didn't want to risk a confrontation so I stayed quiet.

It's important to say, too, that my CTs and my supervisor were really enthusiastic. They

wanted me to do well and believed in me. They worked hard for me. They were good resources.

If I had it to do over again, I wouldn't change anything. I mean, you can't change people's

personalities. We are who we are. In the end, you just have to figure out how to make it work and

hang in there. All in all it was a great learning experience and very insightful.

Case 3: Fiona, Sophia, and Melody

Fiona O'Brien's residency placement was at Oleander Middle School in the mathematics

classroom of Sophia (Sophie) Green. Oleander was considered one of the most "difficult"

middle schools in the district. The students who attended that school came primarily from

families of lower socioeconomic status. Many students' parents had not graduated from high

school and were less equipped to navigate the world of education. Oleander was rated by the

district as an "at risk" school and received special funding to support efforts to increase standardized test scores.

Oleander was a challenging school socially as well. Walking down the halls at Oleander, one could hear students and teachers with raised voices, often talking over one another. When visiting Oleander for the first time, one could be surprised during the passing periods because the students tended to barrel down the hallways at top speed and top volume and navigating among them became hazardous. The volume, manner of speech, and physicality of the students at Oleander were challenging for outsiders, but appeared to be accepted parts of the shared social norms of both the student body and most of the faculty. There were portions of the faculty, however, for whom these social norms were confusing or even troublesome.

A very personal note about my relationship to this case: In writing these stories, I must admit my ineptitude. I have endeavored to explain how three white women (Fiona, Sophia, and myself) perceived a predominantly black middle school where I perceived the students' social norms to be louder and rougher with each other than at most other middle schools in the district. I have worked to accurately represent these women in this setting using their own manner of thought and speech. I worry, though, that I don't have the right to say these things or that in saying them, I will be offensive or insensitive to the lives this part of the story represents or relates to. I ask the reader to recognize my ineptitude and bear with me.

Individual and collective stories.

Fiona's story. Fiona (Fi) is a passionate teacher who was influenced greatly by her middle school mathematics teachers--the kind, the scary, and the supportive. She looks back to middle school as a pivotal time in her life when she began to hold herself accountable for her own success. She made lifelong friends, began playing a sport that would become a big part of

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her life, and changed the way she looked at her academic responsibilities. Her eighth grade mathematics teacher in particular played a big part in changing the way she approached school because he challenged her to expect more of herself.

Fi is a very open and generous person with her classmates, her mentors, and her students. Her colleagues often used her as a sounding board for the frustrations they experienced in the residency program. Her mentors found her to be an easy conversationalist and one who listened well to both professional and personal stories. As the school year progressed, her students began to confide in her, telling her things they did not always tell their other teachers and trusting her to do what was right for them. The other teachers at her school also gravitated towards Fiona and saw her as both someone they could mentor and someone they could depend on to do her best for the students.

Fi experienced challenges in her residency that her peers did not. She was assigned to multiple collaborating teachers, which was not unique, but unlike the usual structure, Fi was responsible for approaching one of her collaborating teachers to gain agreement about her residency assignment, which the teacher seemed reluctant to do. She was also assigned to a school where the students are known to be louder, rougher with each other, and less academically motivated. Though Fiona wanted experience in a "harder" school, transitioning from a school where quiet students from privileged backgrounds politely make academic gains to a school where boisterous students from lower socio-economic backgrounds struggle to learn was certainly a culture shock. Given these challenges, it was difficult for Fiona to try out instructional strategies that aligned with her university program. For her, it was hard enough just to get them quiet enough to hear instructions. Fiona attempted and rejected several instructional approaches due to students' reactions and interactions. Taking Cornell Notes? They didn't even

keep up with their own notebooks. Do group work to engage in rich mathematical tasks? They didn't talk to each other without insults and arguments.

Rather than focus on instructional strategies that seemed impossible in this environment, Fiona used her residency to research, develop, implement, and assess classroom management methods. She was thorough in her approach to verbal and nonverbal cues, seating arrangements, and other aspects of managing the classroom environment, but often felt that her efforts were in vain. Students did not really get any quieter or more orderly over the course of the year. Instead, Fi adjusted her expectations and her instructional strategies to meet the needs of her students, a goal she set for herself at the very beginning of her program. The following comments were drawn from our very first collaborative meeting when Fi was asked to consider what she thought would be the most challenging aspect of this year.

> Fiona said the culture of the students is the most difficult thing for her this year. Personal space, language, appropriate/inappropriate behavior and communication, etc. She said that "setting the culture of the classroom" is not something a teacher does on her own. She'd like to learn how to negotiate that culture collaboratively. She wants to work with who they are instead of trying to change who they are. She's already met some theory vs. practice issues about "establishing classroom culture". She's ready to learn from each of these students. (2015, Initial Visit Notes).

The challenges she faced made Fiona a more flexible teacher, student, and person. After her residency, she was able to facilitate instruction in a classroom where the noise level was much higher than many of the teachers and administrators who observed her found comfortable. She learned how to track student engagements in ways that did not depend upon the noise level.

Her expectations of students' roles in the classroom changed to meet the needs of her students. "It's my job to teach you . . . how to do this thing. But it's also my job to get it to you in a way that you get it. And it's not my way. It's usually not my way. And that's fine."

As a student of teaching, she learned to be more flexible about the time and resources she received from her mentors. Fiona talked about renegotiating her expectations of the residency against her mentors' responsibilities. It took time to let go of the desire for Sophia to be ever-focused on her as the student teacher. "[A]t first it was kind of like, no, you have to be there. Mrs. [Green], like, this is, this is about me. Like, it's about me learning. You have to be--no, you have to be present. And it bothered me a little bit, but then I realized, like, I'm going into teaching. And teaching is never what you want it to be. Never ever." Fiona learned that her mentors were great resources, but ultimately, it was up to her to draw on those resources by setting and tracking her own goals so that she could make the most of the time she had with her mentors.

This newfound flexibility also impacted her personal life. During her residency year, she got engaged and was planning a wedding--a stressful endeavor for even the most serene of women. Fiona, though, decided not to stress out about it. She took her cue from her work in the classroom. Where her students were concerned, she commented, "I'm only here to say yes . . . I'm a say yes person now." She applied this policy to wedding planning. For example, her centerpieces for her wedding reception were four different ideas from four different friends. "And we're going to do them all," she said. She had no say in the wedding invitations and trusted her family to take care of it. Her fiancé even remarked that she seemed so much happier and less stressed--a comment that Fiona noted few of her peers received from their loved ones during their residency experiences.

In her "final story" submission, Fiona summed up her experiences this year. By the end of the school year, she says,

> I was put in the middle of some scandalous girl drama and managed to wipe tears, calm down, hug, and organize three hormonal girls. All while giving the other eighteen students in the room a direction in a tone that let them know this wasn't a time to mess with Ms. [O]. Now that's an achievement. That's what I've learned this year. Find the time to be warm while always being firm, be ready for literally anything, and love them all no matter what. (Fiona, 2016, Final Story).

Sophia's story. Sophia has been teaching all her life. She began as a small child teaching the cat and the dog and her dolls. When she was in late elementary school, she was often asked to teach with or substitute for the adults in her church during Vacation Bible School and Sunday School classes. Teaching has always been a part of her life. During her undergraduate education, Sophia considered law school and was even accepted by several before marrying and ultimately deciding to teach. She has always loved math and teaching mathematics gave her the opportunity to help students to meet their academic goals.

Sophia was pragmatic in her approach to teaching and learning mathematics. For the first thirty years of her teaching career, one of her goals in teaching was to make her math class the kind of class that students would love to go to. She wanted to motivate her kids to love math class. She learned, though, that many kids would never love math. She recalled a speaker who pointed out that while it is important for math teachers to motivate their students, sometimes the motivation is this one fact: "You have to pass this class to graduate from high school." For Sophia, this approach was one she could embrace.

Sophia has been teaching for more than forty years and was confident in her ability to make the material clear to her students. At Oleander Middle School, she taught Algebra and Pre-Algebra to eighth grade students, many of whom have a reputation for being troubled kids. She decided to take on an intern this year because she felt like an extra teacher in the room could only benefit her students.

This year at Oleander was especially challenging. During an individual interview, Sophia recounted her experience during the first day of the school year, which was different from her previous experiences.

> Day one of school, you know, there's always a honeymoon. There should at least
>
> be a day of honeymoon and I've always experienced, you know, a month of
>
> honeymoon . . . Where everything is--you've got really solid plans, and everything
>
> is orchestrated. (Sophia, 2016, interview).

This year, the students at Oleander didn't follow Sophia's expectations, though. Starting on the very first day of class, these students were very different from every other class she had taught.

> And these kids literally burst into the room . . . They had only been to homeroom
>
> and periods 1, 2, 3; come to us before noon, and it's just, you know, we had to
>
> stop and say, 'guys we need to rewind this. This is the first day of school (Sophia,
>
> 2016, interview).

For Sophia, this attitude was especially frustrating because she had felt prepared to ease them into the school year and establish some classroom expectations. "We had fun activities too, you know, to get acquainted. You think anybody's listening? And it was all, it's all stuff that's friendly to their age. And so it's like, okay, we're dealing with a new thing here" (Sophia, 2016, individual interview).

As time went on, she discovered there were a significant number of kids who had parents in prison. "School is the only place they're going to get direction." Sophia related that having Fiona in her classroom this year has been really essential to reaching all the students.

Sophia attended to a lot of responsibilities at Oleander. She was the subject area leader (SAL) for mathematics at Oleander, meaning that she served as a mentor for the mathematics faculty. Other teachers were often in Sophia's classroom and Sophia was often out of her classroom to attend do the needs of her colleagues. As such, Sophia's teaching schedule was light in comparison. At the beginning of the school year, Sophia was assigned only three classes to teach, meaning that she had three "free" periods during the day. These periods were generally filled with meetings, mentoring sessions, observations, and other responsibilities Sophia was assigned by the administration. As a result, Sophia always felt her time for mentoring, conferences, and other duties associated with Fiona's residency was important, but limited.

This year was Sophia's last year in the classroom. During a week-long leave from her classroom this year to attend her father-in-law's funeral, Sophia made the decision to retire from teaching. She commented that she was grateful to be able to work with Fiona in her last year of teaching and regretted that she would not be around the next year to see what Fiona would do in the classroom. Because of her retirement, two vacancies were opened up at the school and Sophia wholeheartedly recommended Fiona to fill one of them. She also passed along many of the teaching tools she herself had purchased over the years like scissors and calculators to get Fiona started in her first year.

Melody's story. As with the other residents, I began my association with Fi as an observer during her teacher preparation coursework. As I sat in the back of the university classroom, typing steadily and listening to the instructors and students speak, I developed a real

admiration for Fi's ability to listen to her classmates' discussions and ask questions that drove straight to the heart of the dilemma. She struck me as a student who was very focused on the impact teaching has on learning and the ways teaching can be used to support students rather than dictate them. I was very impressed by her.

Because of my impression of Fi, I sought out the opportunity to serve as her university supervisor. Two supervisors had been assigned to work with the thirteen mathematics residents in our program. Because I had already worked as a residency supervisor for a year, I pulled rank and made sure I worked with Fi, even though having the other supervisor work with her would have made more sense geographically. I had a feeling that working with Fi one-on-one was an opportunity I didn't want to miss. I was right.

I thoroughly enjoyed working with Fiona. From the very first classroom visit, I was excited about her beliefs about teaching and learning and her ability to think deeply about both. As noted in her story, Fiona expressed during that first meeting a desire to work with her students' established social norms rather than attempting to mold it to a predetermined classroom norm. Her attitude was a revelation to me. Though I hadn't had a resident in a school like Oleander before, I had worked with several residents who had fought against uncomfortable situations. In those situations, the students held true to their preconceived notions of what they believed their residency *should* be and refused to adjust their thinking to accommodate for unexpected situations. With Fiona, though, the opposite seemed to be true. She sincerely wanted to step inside the unfamiliar and learn to navigate it. She didn't seem to have any preconceived notions about what her classroom should look like or how her students should act. Though she was clearly experiencing something new with her work at Oleander, she wasn't making

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comparisons with other schools or planning how to make this experience look more familiar to her. Yet again, I was thoroughly impressed with her.

As the school year progressed, I continued to be impressed with Fiona. I knew from our pre- and post-conferences and from our text conversations the challenges she was facing, and I expected her to send up a distress signal any day. Instead, I found her to be calm and willing to keep trying new things. When she spoke of the difficulties during instruction, it was always with a desire to find a solution. She didn't complain or vent. She was understandably frustrated when things didn't go the way she'd planned, but she didn't retreat. I watched her try one classroom management strategy after another and deal with uncooperative students, belligerent students, failed tests, destroyed materials, lost books, and a myriad of other daily challenges. She just kept trying. I'll admit: I was in awe. Never before had I seen someone stand up to so much pedagogical abuse and keep going. From our interviews, I know there were days she went home and cried. I'm sure there were even passing periods when she went to the bathroom and cried. But in my hearing, she never complained. She was given ample opportunities to complain-- during one-on-one sessions with me, during conferences before/after observations, and during seminar meetings where her peers unloaded their frustrations. She talked about her challenges, sure. I could see clearly that she was struggling. But she didn't moan or tear down her students. She never said they were incapable of learning or unable to change. She never tore down the school or the other teachers. She never stopped looking for answers. She never stopped loving the students. She never stopped trying to reach them.

I saw Fiona as strong, resilient, passionate, and willing. She didn't have all the answers and she wasn't a perfect teacher. There were certainly skills that needed attention and ways she could improve. But she was like a hundred-year-old oak tree in a gale force wind. You may take

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some branches and leaves from her, but she will bend with the wind and keep standing. Even as I listened to the audio data and moved through the analysis process, I had to stop and reflect on the strength of this teacher who is also still a student. Even now, I am in awe of her. What makes Fiona more remarkable is that after this really tough year at what is considered one of the district's toughest schools, Fiona accepted a full-time teaching position at Oleander for the following year. She signed on to continue this challenge.

For me, the experience of being Fiona's university supervisor is one I cherish. I learned so much from her about patience and focus and willingness to get up again and again to face the same challenges every day. I learned to be flexible and say yes. I learned to see past what I think should happen to what is needed by my students. I learned to help make those things happen.

It may seem odd that my story for this case is all about the resident with whom I worked, but for me, she was my experience. Watching her grow and do what she needed to do was the predominant story for me. In a way, watching her do what I am not sure I could have done myself as an undergraduate teacher candidate overshadowed my own role as her supervisor. Because I had never before worked in a school like Oleander, I spent much of the year relearning supervision. By watching Fiona grow and acclimate to the school culture at Oleander, I had to redefine my own expectations as her supervisor.

For example, Fiona and I co-taught during one of her observational cycles while Sophia collected observational data. Before the observation, I saw this lesson as an opportunity for me to show Fiona and Sophia both the benefits of inquiry-based instruction and whole-class discourse. Fiona and I prepared together, considering the ways students might respond and the directions their thinking might take us. We had a rich and productive discussion about student thinking and the use of student thinking during instruction. During the lesson, however, Fiona

and I spent more time trying to get them quiet enough to hear each other than we did talking about mathematics. For me, it was overwhelming. I thought I had experienced challenging classes before, but I had never had so much difficulty just getting in a word edgewise. After this lesson, I thought to myself, "Fiona and Sophia do this *every day*." I realized I needed to listen to them more closely when they spoke about the strategies that would and would not be productive for these students.

This experience—among others—caused me to rethink my teaching and my supervision. In the collective stories for this case, I'll share other aspects, like my work with Sophia and the ways the three of us had to compromise with one another, but for my individual story, it's really all about Fiona and what I saw as her impressive fortitude and tenacity as she grew as a teacher focused on her students' needs in a setting with which neither of us was familiar.

Susan: Absent, but present. One member of our collaboration was not really there at all. I begin this story with the disclaimer that I did not ever meet Susan, nor did I secure any kind of data directly from her. Her story (or our collective version of it) is important, though, because it impacted the way Fiona, Sophia, and I worked together. Because I did not collect data directly from Susan, it is important to understand that this portion of the story is a compilation of Fiona's and Sophia's stories about her. I include it, however, because her presence in Fi's program affected the way Fi thought about teaching and learning and the way our triad related to one another. During our individual interview, Fi spoke at length about her experiences with Susan. This portion of the story comes primarily from Fi's perspective.

At the beginning of the school year, Fi was assigned two collaborating teachers: Sophia, who would be her main CT, and Susan, with whom she would spend one or two class periods each day. At least, that is what I thought had been established. Fi reported that she had to go to

Susan at the beginning of the school year and ask her to be one of her collaborating teachers. She

notes that Susan was not necessarily enthusiastic about her presence in the classroom.

> She's a second year teacher, this is her second career. So she doesn't have any,
>
> like, teacher education knowledge or background. And it doesn't help that I'm
>
> fresh off of that. . . So going in I knew it was going to be not, like, bad, but after
>
> the first day . . . (Fiona, 2016, interview).

Fiona talked about the school-wide PowerPoint presentations that were used in the first week of

school to acclimate the students to school policies and begin to set the culture of the school.

Susan did not use these PPTs. Instead, she made her own that were very plain: "white with black

text, Times New Roman". Susan told Fi that she could present the PPT one day during that first

week, but Fi quickly found that she was uncomfortable with the tone set by these slides. She

described one particularly uncomfortable moment.

> So I'm up there and I hit the Next button. I'm reading off the PowerPoint slides. 'I
>
> am, like, we are your teachers.' Well, it said I am your teacher, so I changed it to
>
> 'we are your teachers.' 'We are here to guide you and mentor you and help you and
>
> teach you.' Next slide, all caps, bolded, underlined, **<u>BUT WE ARE NOT YOUR</u>**
>
> **<u>FRIENDS</u>**.' So day one, I pretty much shit my pants. (Sophia, 2016, interview).

From the beginning, Fi was unsure of this collaboration. As the year went on, she became

increasingly uncomfortable with the tone of Susan's classroom and her role in it. Susan was

having a tough year with her students, especially the eighth graders who also worked with Fi in

Sophia's classroom. Susan had difficulty with these particularly vocal students. Students began to

complain to Fi about Susan and even went to the administration with their concerns. Fi, as a

resident teacher, was not an employee of the school, but she was an adult in the classroom, so the administration asked her to give her account of incidents in Susan's classroom.

To add to this uncomfortable situation, Fi would also often serve as the middle man between her two CTs. Susan would ask for Fi to come during a different class period, which would upset Sophia because she was the primary collaborating teacher and the school's mathematics SAL. Sophia would forget to email Susan about some change in Fi's responsibilities and Fi would be left to deliver the news.

All of this was very uncomfortable for Fi, but she commented that what made her the most uncomfortable with Susan was the way she interacted with her students during instruction. Her instructional strategies were regimented into a five-day schedule that was seldom disrupted. Though she would allow Fi to try something new during class, they never made it very far into the lesson before Susan would declare that it wasn't working and revert back to her usual way of doing things. Susan regularly called on the same few students and ignored the others. "She's very quick to, like, count people out. . . If she seats you in the back of the room . . . she sat you in the back so she doesn't have to deal with you." When Fi talked about this aspect of Susan's teaching, she was the most regretful because she felt like she was the one who paid attention to those students when Susan dismissed them, a role she couldn't fill forever.

Eventually, Fi left Susan's classroom permanently. She found a graceful way out. She had only been assigned to Susan's classroom because Sophia's class load did not satisfy the residency requirements. Once Sophia was assigned an additional class, Fi did not really need to be a part of Susan's classroom anymore. Around the time Sophia was assigned the new class, Susan had wanted to change Fi's schedule in her classroom, which would conflict with her schedule in Sophia's classroom. When Fi was asked, yet again, to negotiate the two schedules by carrying

messages between her CTs, she took advantage of the opportunity to simply bow out of Susan's classroom. "If you don't want me to stay in seventh period, I just won't come. No hard feelings. I just won't come. There's, like, thirteen kids in that classroom. You don't need a second person." Susan agreed and Fiona devoted the remainder of her time to Sophia's classroom.

Fi was grateful to break her association with Susan. "The way that I see her treat students, talk to students, present information, I can't, I don't want to be associated with that. Like, I don't even want—I'm not asking—I'm not putting her on my resume because I don't want to be associated with her in any way, shape, or form. Because I can't. . . I'm uncomfortable putting my name on anything that comes out from her." Given Fi's generous nature, these words were strong indeed.

Susan did not seem enthusiastic about their association, either. At the beginning of the school year, I included Susan on all emails about our collaborative meetings and observations. Susan replied only once to provide the single sentence "I'm available Monday at 10:45 or Tuesday at 10:45." Unfortunately, this time marked the last five minutes of second period, which was insufficient for the kinds of meetings we needed to have to support Fiona. Fi let me know that Susan was not willing to give up her planning or lunch period to meet with us. Fi also seemed uncomfortable scheduling observations during her time in Susan's classroom. By the end of September, after weeks of no email responses and no face-to-face meetings, I stopped including Susan in the collaborative emails.

During our conversation about Susan, I told Fiona that I regretted having given up too quickly on my efforts to contact Susan. As I received more and more information from Fiona about her time with Susan, I felt conflicted about whether or not I should keep pushing for her involvement.

I feel horribly guilty because I've never met the woman. I was, I thought, Where is the line? Right? Like, where is the line that stops being, like, 'I'm facilitating this student's residency' and pushes into 'I am now causing a contentious situation'. I couldn't figure out where that line was, so I erred on this side of it and tried really hard not to create problems that weren't already there. So, but the fact that I never did meet her, um, I can't help wondering if that might have contributed to the fact that you don't see her anymore. (Melody, 2016, individual interview).

Fiona argued that it was her fault that I never met Susan, but I was not satisfied with that answer. After Fiona told me about her experiences in Susan's classroom, I wondered again about my own culpability in their experiences this year. Could our collaboration have been helpful to Susan? Could we have supported her through what sounded like a pretty tough year? Of course, the purpose of our collaboration was not to support Susan. It was to provide Fiona with everything she needed. Still, I wished we had tried.

This story contributes to our collective story because Susan became a kind of boogey man in our collaboration. We all knew that Fiona was spending time in her classroom, and we all knew she wasn't enjoying it, but we really didn't talk about it. Instead, we talked around it. In fact, we didn't even talk about Fiona's decision to leave Susan's classroom. Because Sophia and I—and our program manager Jim—all trusted Fiona to do the work she needed to do this year, we did not interfere with her decision to remove herself from Susan's classroom, nor did we ask her about it. It was a special kind of trust we had for her. I cannot think of another resident who was given this kind of freedom.

Susan's "presence" in our collaboration also gave Fiona a new kind of perspective on her other mentors. Though Fiona was often frustrated by Sophia's lack of time for structured mentoring activities, she had great respect for Sophia's caring and maternal nature towards their students. She was also able to appreciate the ways Sophia was able to share her classroom. Juxtaposed against Susan's unwillingness to deviate from the norm, Sophia's loose classroom structure became a real advantage for Fiona as she developed her own ideas for classroom management. So, though she was not physically present in our collaborative endeavors, Susan was part of our collective experience.

Fiona & Sophia's Story. Sophia and Fiona's relationship strengthened throughout the school year. Daily, Fiona ate lunch with Sophia and learned about her life and experiences. She watched the comings and goings of the other mathematics teachers in Sophia's classroom as they turned to her for advice, mathematical knowledge, planning strategies, or other aspects of school life. Through these daily encounters, Fiona's respect for Sophia as an educator and leader grew. Sophia was able to observe Fiona's interactions with students and colleagues, too, and gained a great deal of respect for her abilities and the way the math department worked together.

> Everybody's always, 'it's a team, it's a team', but it—I've always been on a sports team, and it's not—This is not a sports team. It's so different. You're in your own room and you see each other for maybe for a few moments a day. So it's understanding what this team dynamic really is and how it flows and what each person does. It's been really helpful to see that aspect. (Fiona, 2016, individual interview).

Seeing the way Sophia manages this "team" has given Fiona a better understanding of what the team dynamic should be and who her resources will be in the future.

Fiona and Sophia learned to co-teach more effectively as well. During our triad interview in the last month of the program, Sophia and Fiona both excitedly related an example of truly connected co-teaching from a recent class session. "It was not in a contradictory role. It was not in a . . . a . . . It was just, It was true partnership. And that's what you envision all the time," said Sophia. Fiona added, "It was so effortless. . . . There was no interruptions either way . . . An ideal team teaching setting." Both were really excited about the way one was able to smoothly take the baton from the other to enhance the learning of their students. This seamless co-teach relationship was very different from the way they taught at the beginning of the school year when Sophia would lead the students through a PowerPoint and Fiona would work with individual students to answer questions and maintain order. As the year progressed and Fiona's and Sophia's respect for one another grew, they were able to work together as a unit to improve instruction.

Fiona & Melody's Story. Fiona and I had a head start in learning about one another. Because I had already observed many of Fiona's classes at the university and interacted with her to exchange resources on occasion, we already had a sense of respect for one another. From the very first classroom visit, I established myself as a resource for Fiona, making it clear that my job was to make sure that Fiona got what she needed during the school year. As the year progressed, Fiona used me as a connection between theory and practice. When she faced challenges with an instructional strategy or classroom management technique in her classroom, she and I would reflect on her efforts and consider how she might plan to build on the progress she had already made. Fiona related a session we had at the end of the fall semester. She was frustrated by what she saw as a lack of growth in her students' ability to relate to one another, so

I asked her to analyze what her goals were, where the students had started at the beginning of the semester, and where they were at the end of the semester.

> You know, the things that I complained about at the beginning. You know the issues that we were having with them, and, well, what are they doing now? Wow, they did, they did grow a little bit. Not as—you know, you want them to do all these other things, but they really did grow a little bit. (Fiona, 2016, interview).

Once Fiona began to see the progress her students had made, we spent time planning how she could use this growth to set new goals for the coming semester. During our interview, she reflected on this process of analysis and goal setting.

> So you know, it's really organizing where I have this idea, but I don't really know—I have like, a fourth of an idea, but I'm missing the other 75%, so it was, um, so to me you were really helpful in organizing all this stuff. (Fiona, 2016, interview).

During that session, I was able to take an outsider's view of the classroom and help Fiona see the growth that had occurred. It wasn't what she wanted yet, but progress had been made.

In those times, I saw myself as Fiona's cheerleader, especially when her biggest critic was herself. Fiona was very good at finding her own faults and applying her attention to improving herself, but she often forgot to celebrate the little victories. For example, during our final evaluation conference, I asked Fiona to lead the meeting and tell us where she thought she scored for each of the skills in the district's version of the Danielson Rubric. Of the four ratings--Action Required, Progressing, Accomplished, and Exemplary--Fiona tended to score herself as Progressing. As a teacher candidate, it was only right and reasonable that Fiona should be progressing, but for our scoring purposes, I wanted her to focus on the progress she had made

and not compare herself to other teachers just yet. Throughout that conference, I interjected Fiona's successes and strengths, an act that made Fiona uncomfortable at times. "It's very uncomfortable listening to people talking about you," she commented after I praised her for her ability to connect to her students on a deep and meaningful level.

There were other times that I saw myself as a supplement to her collaborating teacher—to support her when Sophia was unable to do so. During the spring semester, for example, Sophia's father-in-law died and she went with her husband out of state to attend his funeral and tend to his estate. She was out of school for a week, meaning that Fiona spent that week teaching on her own with a district-paid substitute in the room to keep everything legal. During that week, I talked with Fiona daily via text or email and visited her classroom twice, bringing her treats and staying after school to chat about her work that week.

Fiona expressed that she has appreciated my willingness to be available in a variety of ways (e.g., phone, email, in person). Also, we have been able to flex not only the scheduling of our observations and conferences, but the structure of those visits. At the beginning of the school year, I expressed an expectation that all three of us would be present at each of these visits, but Sophia's responsibilities often made that kind of expectation difficult to meet. It was helpful to Fiona that I was willing to be flexible in the way those meetings and observations took place. At times, Fiona and I met without Sophia or while Sophia was attending to other tasks at her desk. On two occasions, Fiona and I co-taught, once while Sophia took observational notes and once while Sophia was absent. Fiona and I co-planned several times in different venues—at school, at the university, and at my house. These fluctuations in our triad structure were helpful to Fiona in setting her expectations for her residency year and her first years of teaching.

At the end of the school year, Fiona gave me a card that included the following.

Thank you for always listening and being there when I needed you. There will be

times next year when I know I'll need your calm demeanor to balance my

organized chaos. The best part is I know you'll always be there. (Fiona, 2016,

thank you card).

During the analysis process, I sent her a note that included these words that reflected back

to a story she had told me about her influential 8th grade teacher who challenged her

when she felt like her parents weren't.

You'll be that teacher, Fi. The one that gets a letter ten years later because her

student has gotten up in front of their college algebra class to recite the Quadratic

Formula. The one who yelled at them the way they were waiting for their parents

to yell at them. You'll be a life changer. (Melody, 2016, instant message).

Throughout our collaboration, Fiona and I shared a great deal of respect and delight in one

another as we shared resources, experiences, and stories together.

Sophia & Melody's story. From the very first conference, it was apparent to both Sophia

and myself that we had very different views of education and very different experiences that had

formed those views. Sophia has been teaching for more than forty years. I have not yet been

alive for forty years. Sophia describes mathematics computationally: "The answer is the answer;

it's not your opinion." I describe mathematics problematically and use computation as a means to

solving problems. Sophia sees technology in mathematics as somewhat manipulative and

contrived. For example, while describing a demonstration she used to illustrate the volume

formulas for various solids, she related a student's reaction: "'That is amazing. Our teacher last

year had a PowerPoint that she did that on'—and these were actually her own words—'but you

could make the PowerPoint do anything you wanted. This is for real'". In contrast, I see

technology not as a way to manipulate reality, but as a way to explore mathematical ideas that are difficult or impossible to explore in the classroom. While listening to a recording of the two of us talking about mathematics teaching and learning, I made the following memo.

> In this portion of the interview, I try to find some common ground between our perceptions of mathematics. Sophia views mathematics as static, unchangeable, and non-negotiable. I see computation this way, but I don't see mathematics as only computation. It's a little like seeing two gentle bulldozers meeting at a central point, with neither giving way. I listen to Sophia and push back, gently and firmly. Sophia listens, but doesn't give way. Instead, she reiterates her thinking—again, gently, but firmly. This exchange continues between the two of us, pushing back and forth with specific examples. I think we both leave this conversation with a clear understanding that we do not agree, but without the kind of attitude that would prevent us from working together. It's a remarkable exchange, really. (Memo, 2016).

Sophia and I had similar exchanges throughout the year during conferences, before and after observations, and during interviews. Pedagogically, we are like two bubbles. We can support one another and we can stick together, but we are not truly intersecting each other—not mathematically, anyway. We both also showed a great deal of respect for the other's bubble—no popping allowed. Though we certainly did not view mathematics teaching the same way, neither of us actively disliked the other for it. We were able to keep our focus on Fiona and meeting her needs.

Figure 12. Sophia and I worked together carefully, like two intersecting bubbles.

In meeting Fiona's needs, we also differed greatly in our approaches. Because I perceived many aspects of Sophia's pedagogy as being counter to the pedagogy of the university program, I offered my support to Fiona through co-planning, co-teaching, and checking in often to see if she had what she needed. Sophia, as the on-site collaborating teacher, provided Fiona support in other ways. She and Fiona negotiated and renegotiated their co-teaching relationship throughout the school year. Sophia was very flexible in viewing Fiona's role in the classroom and provided her with increased autonomy as the year progressed. Sophia also did not hoard her time with Fiona, but provided her with ample opportunities to make connections with other teachers at the school.

Though our collaboration was not the one I envisioned, Sophia and I worked together amicably and I am very proud of our work.

Our triad. The three of us were similar in many ways. We were all highly invested in the success of our students. We cared about the individual student even as we knew lessons must be designed for the class as a whole. When we told stories, we told them about individual students and our experiences with those students. Mostly, though, we liked to tell stories. Long stories. Funny stories. Involved stories. Meaningful stories. Stories that shaped our views about teaching and learning. And we all told stories in a kind of meandering way that probably drove a lot of people crazy. As we were wrapping up our final conference, Sophia said it really well. "My husband says I can say in 200 words what most people can say in ten." We all laughed and laughed. It was such a relief to hear her say in such a succinct way what we have all thought about one another at some point during the year.

Our meandering ways often meant that conferences and side conversations ran long. We tended to get distracted by our stories and follow them to their often unrelated ends. As such, we

each experienced impatience with one or both of the other members of the triad at some point during our collaboration. In recordings of conferences, I can hear myself cutting Sophia off in the middle of the story to redirect the conversation. I was always worried that we wouldn't have enough time to address all the aspects of each pre- or post-conference agenda. Though I felt that as the university supervisor it was my job to facilitate these meetings, I also worried that cutting Sophia's comments short was disrespectful. Fiona expressed similar concerns when talking about her one-on-one time with Sophia. With Sophia's many responsibilities at the school, Fiona was often mindful of the brief opportunities she had to plan and reflect with her. She was caught between wanting to redirect their conversation and wanting to show respect to her collaborating teacher. Fiona and I had a tendency to tell long meandering stories too, though, and I imagine Sophia often felt the same way about us. In the audio data, I can hear Fiona tell stories in which she interrupts herself often. She starts a sentence or idea over and over again, interrupting herself and changing directions often, like her mind is moving through the story too quickly for her tongue to keep up. I can also hear myself tell stories that, in the moment, I thought were relevant. Listening to them, though, I realize that many of my stories were evidence that I didn't always listen properly to what my colleagues were saying. Those stories often turned the conversation in a new direction and sometimes left important ideas unexplored.

Fiona, Sophia, and I learned to be flexible with one another. Because of Sophia's responsibilities as the mathematics subject area leader, teacher mentor, collaborating teacher, and several other roles, her time for conferences was limited. Several times over the course of the year, Fiona and I conducted conferences without Sophia or with Sophia present, but attending to other work. Quite often, I would receive a text message from Fiona requesting that an observation or conference time be changed, sometimes with only minutes to spare. Though at

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first I was quite frustrated with these last minute schedule changes, I learned to be flexible with both Fiona and Sophia as I learned more about their situation at Oleander.
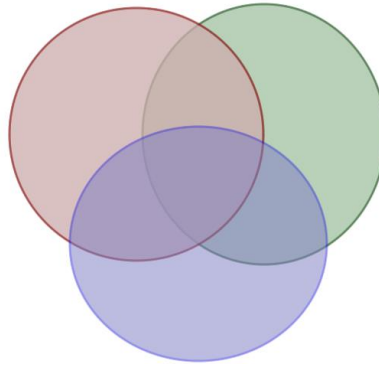
Figure 14. The triad relationship in Case 3 was equitable.

Reflecting on each of our individual experiences as well as our collective stories, our triad appears very equitable in terms of our connections with one another. Each of us had strong connections to each of the others as well as a capacity to work together as a triad. When I consider the disruptive dyadic relationships found in previous experiences and in the research, I feel a certain amount of pride in our ability to be truly triadic. Although Sophia and I approached mathematics teaching and learning from very different positions, we did not place Fiona in the middle of a contentious situation. And, although Fiona faced daily challenges, she did not lean too heavily upon her mentors to save her from those challenges. Instead, the three of us accepted our common goal and were able to support Fiona in her professional growth throughout the year. I would not call it a perfect collaboration, but I would certainly call it a successful one.

Opportunities for phronesis.

Growing Relationship, Growing Autonomy. As the year progressed, Fiona and Sophia learned to co-teach more effectively. As noted in their joint story above, by the end of the school year, the two were able to think and teach collectively in a way that enhanced instruction. When I asked them what they thought had changed in order to make their partnership grow, both spoke

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of a growing relationship with one another. Fiona became more honest with herself and with

Sophia about what she needed in the classroom and what aspects of teaching made her

uncomfortable. By being a constant presence in the classroom, Fiona was also able to see the role

that Sophia played in the school's mathematics faculty. She was able to see the "team" that was

formed and trust Sophia's part in that team.

Sophia saw herself in Fiona, as if they were "an older version and a younger version, but

on the same page in the same book". She watched throughout the school year as Fiona's

investment in her students grew. During our final interview, Sophia related to me a story about

Fiona's first week.

> It was interesting in the beginning. There were a few times that she would say
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> something to a student like, "Well, if you're not going to be respectful to me, I'm
>
> not going to be respectful to you". . . And it was just a short time into the second
>
> month that she figured that out on her own, that everything—that we had to do it
>
> first. (Sophia, 2016, interview).

As Sophia saw Fiona realize the importance of modeling ideas like respect to her students, her

trust in Fiona's teaching abilities grew. Seeing Fiona reflect on her time in the classroom and

make changes to her approach assured Sophia of her trustworthiness as a colleague.

Unflattering, but Useful Comparisons. Though it is certainly unfair to tell Susan's story

without her input, Fiona's time in Susan's classroom shaped the way that she looked at her

students and her subject. The level of discomfort Fiona felt in Susan's classroom solidified her

own pedagogical beliefs about teaching and learning in several ways. First, Fiona believed that

teachers should learn from their students. One of the most discomfiting things for Fiona about

Susan's classroom was the way she talked to her students. According to Fiona, her role in the

classroom is to "say yes". Her compassionate and loving approach with students is born out of her belief that students' needs must come first and was fortified by the dispassionate ways Susan interacted with her students.

Fiona's time with Susan also demonstrated the difference between a teacher working alone and a teacher working in cooperation with the rest of the faculty. Fiona attended a number of faculty meetings, team meetings, professional development opportunities, and other faculty-centric gatherings. Susan was either absent or late to all of them and interacted very little with her colleagues. According to Fiona, Susan really valued the autonomy associated with teaching—being able to close the door and do as she pleased. Fiona saw the value of working with other faculty members, though, and became frustrated by Susan's detachment. For example, during a team meeting, Fiona spoke with teachers from other disciplines about a specific student's progress. The other teachers were confused by the student's high grade in math when his grades in the other subjects were so low from lack of effort. They wanted to know what was different about his approach to mathematics. Because Susan was absent from this meeting, those questions went unanswered.

Lastly, Fiona valued continuing education for teachers. Susan was a second-year teacher and one who had no formal teacher education training. Because Fiona was coming directly from a teacher education program, she could see disparities between her approaches and Susan's in the classroom. Fiona noted, "I don't think she's a bad teacher. I just think she's not educated enough." She was more concerned, however, by the lack of growth in Susan's pedagogy over the course of the year. Susan did not make full use of the district's mentoring program. When Susan was observed, for example, she "put on a show", teaching differently than she usually did. Fiona felt strongly that the only way she would improve was if her mentors could see her mistakes. About

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our relationship, she commented, "I could put on a really good dog and pony show when you come in to observe me, but then I'd get no help. . . I have other issues that I need help solving." Taking advantage of these opportunities for growth was an essential part of teaching for Fiona.

Shaping the Classroom Culture. Last year, Fiona's practicum fieldwork placements were in schools where the students adhered more readily to the traditional classroom norm of quiet, attentive, studious expectations. Students came to school with the understanding that from 9am to 4:15pm, they would be students who respected the power of their teachers and acquiesced to their demands. Students who did not meet these expectations were considered troublesome and dealt with accordingly. Fiona knew that this expectation would not always be the norm, though, and wanted a residency experience in a school where the students were less likely to conform.

Fiona got her wish. Oleander was considered to be one of the most difficult middle schools in the district. Students at Oleander came predominantly from lower socioeconomic backgrounds and performed poorly on state-wide tests. Due to the poor test performance, the school was labeled "at risk" by the district and was given additional funds and personnel. Oleander also had a high number of behavior problems in the student body, including verbal and physical altercations among students and even between faculty and students.

At the beginning of this school year, Fiona noted that she did not believe she could set the culture of the classroom. Instead, she considered classroom culture to be a collective endeavor that she entered into with her students. She recognized that they already had a well-established culture of which she was not a part. They spoke to each other in ways they accepted. There was a certain level of accepted physicality and aggression among them. They had also already established a certain attitude about school and their place in it. Fiona recognized during the first weeks of school that she would not be able to bend their culture to establish classroom norms

that were familiar to her. Instead, she vowed to learn from her students and about her students in order to establish a classroom culture with them, rather than for them.

During this school year, Fiona had the opportunity to do just that. She used her knowledge of classroom management techniques, her mentors, and other resources to formulate various systems to regulate her classroom without setting unrealistic expectations for her students. Many of them failed. Rather than give up in frustration and allow herself to become disconnected from her students, she worked diligently to reflect, reformulate, and implement new strategies throughout the year. Fiona's use of these strategies, as she molded them to meet the needs of her students, was the very definition of phronesis.

Learning to Love the Students--ALL the Students. I could not possibly tell this portion of the story better than Fiona did in a letter she wrote to the upcoming cohort of residents.

Sometimes you're going to have really bad days. Sometimes you'll need to cry it
out in the car, work it out at the gym, or run to the teacher bathroom to compose
yourself. Your students (yes, they are your students too) will push you further
than you can imagine this year. They will frustrate you, annoy you, make you
laugh, and will beg for your attention. Its true when they say the ones that need
the most love are the ones who ask for it in the most unloving of ways. Even if
you're not a parent, or a hug-loving type of person, I challenge you to love all of
your students and reap the rewards that come with that.

Apologize first. My student population was tough and rough. They throw punches
more than they throw words at each other. The day I apologized to a student for
getting frustrated with her, she surprised me by giving me a bigger apology. She's

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my favorite student, and she's grown a lot over this year. She calls me "her person" at school- you'll be someone's person this year. Appreciate them first, and they will appreciate you back. It might be in a way that's often hard to recognize but you'll know. This lesson is about modeling the behavior, the feelings, that are important in being a good person. I know you're there to teach math or science content, but teachers real job is to help mold good people. What kind of people do you want to see in the world? Start with the little ones in your classroom.

A Phoenix from (What Could Have Been) the Ashes. Fiona's year was not easy. She faced challenges that have caused other residents to give up, shut down, and count down the days to graduation. Instead of giving into the pressure, though, Fiona embraced the challenge and made the most of it. This year and this collaboration allowed Fiona to identify her own power— and lack thereof—and use it to make her residency year one she could learn from. Again, we hear from Fiona's letter to the next cohort.

You have more control than you think. No, you didn't get to pick your school, your grade level, your teacher, or the level of students you teach. You might not have a say in classroom rules, procedures, seating arrangements, or disciplinary actions. You do have control over the attitude you have when you walk into the building each morning. You do have control over how you make your students feel. You do have control of how much you grow over the course of the year. You do have control of the relationships you build between yourself and the staff. Don't be frustrated if you don't get to co-teach. Don't be envious of your peers

placements or CT. Own your placement and take charge to make it the best one

out there.

. . .

The best advice I can give you for this upcoming year is to *have fun*. Keep an

open mind and enjoy this season of life. It might not be everything you had hoped

and dreamed but if you really dig deep and look around then you'll see that it's

more than you could have ever imagined. This year is a gift. Embrace your

support system and ask all of your questions. This is the last year that you will be

surrounded by your cohort, your professors, and your supervisors so take

advantage of it while you can.

Fiona learned to balance her professional growth between her own inquiry and the

strength of her mentors. She used us as resources to set and meet her professional goals. Sophia

and I both responded to that strength by giving her our trust and the room to work. Together we

were able to create an atmosphere of true phronesis for Fiona.

Effects of story sharing.

To Boldly Go (Where I Have Not Gone Before). Story sharing had a particularly

profound effect on the relationship that developed between Sophia and myself, given our

strongly contrasting pedagogical beliefs. In order to illustrate the difference it made in our

ability to work productively with Fiona, I present two short fictionalized accounts of my

experiences as a university mentor working with a school mentor whose pedagogical beliefs are

at odds with my own.

A typical account from my past fieldwork experiences:

Sandra is Ellis's collaborating teacher. I am her supervisor. Sandra and I do not

agree on basic issues of teaching and learning mathematics. I think students

should be engaged in knowledge construction in the classroom and that lecture

and practice approaches really impede their ability to do so. Sandra is concerned

about the end-of-year exams and "covering" all the material before then, so she

leans heavily upon the textbook, worksheets, and pre-made assessments she's

been using for years. I really hate that word: "covering". It makes me think of

icing cakes to hide imperfections and make it look good. I worry that Ellis won't

have the opportunity to put into action what she's been learning about in her

university coursework--learning groups, project-based learning, problem based

learning, and the like. Every time Ellis writes a lesson plan that involves these

kinds of ideas, Sandra tells her no and alters the lesson until it is stripped of all

creativity. Ellis is visibly frustrated and I can't blame her. In our meetings, I tell

her that she can blame her need to use groups and other more progressive

methods on me. "Tell her the university requires you to do these things and that

I'll be looking for them in your observation," I tell her. "Just blame it on me." I

plan my meetings with Ellis off-campus to avoid getting into arguments with

Sandra and try to keep from engaging with Sandra when I go to the school. Ellis

is calling me weekly asking for a change of placement.

I made poor decisions in the past based on a fear of creating conflict for the novice, but in

the process, I neglected to foster a productive relationship between the novice and her school

mentor. What's worse was my own relationship with the collaborating teacher. I was seen as

either an interloper or a combatant, someone who comes into the classroom and disrupts things.

This year with Sophia was different. She and I held fundamentally different pedagogical beliefs, but I didn't enter the relationship with fear. By sharing stories with each other about our backgrounds and our expectations for this year, Sophia and I were able to co-exist in a relationship that focused on Fiona rather than the differences between us. This year could be more accurately represented by this account:

Sophia is Fiona's collaborating teacher and I am her supervisor. Though Sophia and I do not always agree on everything that happens in the classroom, we can agree on our focus: Fiona. Today all three of us are meeting in Sophia's classroom. Fiona has an observation coming up and we're meeting to talk about what kind of lesson Fiona will teach. I ask Fiona to tell us what she wants to work on in this cycle. Fiona talks about classroom management and some of the methods she's already tried. She knows I'd like to see her facilitate a whole-class discussion, but she's worried the students won't be orderly enough to make it happen. Sophia agrees. She knows these kids and they just don't communicate that way—she and Fiona would spend more time trying to regain students' attention than they would discussing mathematics. I listen to both of them and agree with their assessment. Instead, I talk about the purpose of whole-class discourse. Discourse allows students to take ownership of their learning and lets the teacher collect formative data about student learning. To this end, I suggest another option that would allow the students to work in pairs on a more structured worksheet. Students can work together to solve problems and Fiona can collect their work at the end of the day to see what they've discussed. That data can be

analyzed by Fiona and used the next day in a more structured lesson. As the

conference continues, the three of us iron out the kinks in this plan.

Though in previous years I would have avoided engaging with Sophia to avoid conflict, this year I have been able to appreciate our differences and use them to support Fiona in a more effective way. By seeing Sophia as a fellow educator with important contributions to make, I avoided seeing her as an adversary to be circumvented. Sophia's contributions to Fiona's program were very meaningful. I'm so glad I was able to share stories with her so that I could see and appreciate those contributions.

Respect. As the year progressed and we listened to one another's stories and observed one another during instruction, each of us grew to respect the role of her collaborators. Though I entered into our collaboration with a great deal of respect for Fi's abilities and her attitude towards teaching and learning, I learned to respect Sophia for the contributions she brought to Fi's teacher education program. By listening to her during conferences and interviews, I learned more about her background and her reasons for her position concerning mathematics teaching and learning. Though counter to my own, I learned to respect that her approach was not, as I had previously assumed before, a desire to raise test scores or a fear of trying something new. No, Sophia's pedagogical beliefs stemmed from a lifetime of teaching and reflecting on her own and others' best practices. Though I did not agree with her, I could respect the reflective and practical nature she brought to our collaboration.

Due to her position as the novice in our triad, Fiona began the year with a certain deference for Sophia's and my knowledge and experience. As she spent more time with each of us, however, she learned more about our experiences and grew to respect what we brought to the collaboration. For example, one day after a particularly frustrating lesson in which the classroom

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wasn't still or quiet even once, Fi and I were talking about the unexpected things that can

happened during instruction. I shared with her a story about my own first year as a middle

school mathematics teacher when I was being observed by my principal and my shoes went out

the second-story window. After hearing about the struggles I had experienced as a teacher, Fi's

view of me changed. She was able to see me as an experienced teacher rather than just a

university supervisor.

Likewise, after she viewed Sophia's interactions with her students and other teachers,

Fi's respect for Sophia as a teacher grew. At the beginning of the school year, when Fi was

overwhelmed with the complexity of the task before her, she had been concerned about Sophia's

lack of organization and limited time for mentoring. Sophia's attitude towards her students and

colleagues changed Fi's view of her. These experiences helped Fi to better understand her

mentors and have greater respect for the ways they could act as resources.

Sophia's view of me also took some time to develop. During our final triad interview, I

asked her to talk about my role in the collaboration. She spoke about that first classroom visits

and comments I had made about my expectations for the students at Oleander. "I just remember

thinking, wait until she gets to know our kids a little better." We laughed together because I did

indeed get to know their students better as the year progressed. As Sophia got to know me a little

better, though, she realized that I brought knowledge to the table that could connect the students

at Oleander with the principles Fi had learned in her university coursework.

Sophia had a similar experience with Fi. She told me a story during our last individual

interview about Fi's first week at the school. She overheard Fi saying "if you're not going to be

respectful to me, I'm not going to be respectful to you" to a student who was being particularly

disrespectful in class. She remembers thinking that Fi's attitude would have to change to work

with these kids. Soon after, though, Fi had realized that modeling a respectful attitude was more important than being the recipient of one. When Sophia saw that change in Fi without having to counsel her about it, her respect for Fi's abilities grew.

And then Appreciation. Our experiences with one another helped us to cultivate respect for one another, but the sharing of stories also helped to foster appreciation among us. Though we were not tightly knit and we allowed Sophia a great deal of freedom, the appreciation each of us had for the others is evident in our storytelling. The choices Fi made as she researched and implemented new strategies in her classroom are a good example of this phenomenon. When she wanted to talk through a new strategy and consider the tools and implementation that would be needed, Fi turned to me. She saw me as a resource for connecting theory to practice. When she wanted to consider how this strategy would fit in at Oleander and how well it had worked, she turned to Sophia. Fi saw Sophia as an expert on these students and knew that she would provide direct feedback. Fi gained an appreciation for our unique talents and contributions and utilized those talents as she needed them.

Likewise, Sophia and I began to really appreciate the others' contribution to Fi's program as we shared stories about our experiences with her. During our final triad interview, I asked Sophia about the interactions between the two of us. I commented that I was aware that we had different approaches to teaching mathematics and I wondered how she felt about the way those approaches affected our collaboration. Sophia spoke about the flexibility I bring to the program. She admits that flexibility is sometimes worrisome for her. She comes from a tradition of stricter requirements in education, but she has been able to see how the flexibility I allow Fi has given her opportunities a rigid system would not.

Interestingly, when I first encountered Sophia, I was also concerned about structure. Considering the number of duties she had at Oleander, I wondered whether or not she would be able to provide Fi the guidance she needed to reflect on instruction and make changes in her planning. I was wary of Sophia's slow response time to emails and other communications and her tendency to tell long, drawn-out stories that did not always seem to have relevance at first hearing. As I listened to her during conferences and observed her interactions during instruction, I grew to appreciate the care she has for her students and for Fi. Her caring, motherly manner spoke to the special education advocate in me and I felt bonded to her in that way.

A fictionalized narrative. This fictionalized narrative is in Fi's voice and is drawn primarily from a letter she wrote at the end of the 2015-2016 school year to the novices who would be starting their residency in the Fall of 2016. Other data were gathered from interviews and observations throughout the study.

This year there were a lot of things I didn't have control over. I didn't get to pick my school, my grade level, my teacher, or the level of students I taught. I didn't really have a say in classroom rules, procedures, seating arrangements, or disciplinary actions. Some of my peers were having similar experiences and somehow I became the sounding board for a couple of them. They were frustrated because their collaborating teachers didn't seem to want to teach the "right" way or because they didn't get to co-teach. I kept thinking, "Stop it. You're making yourself unhappy by complaining all the time." I would tell them, "You're stressed out because you're complaining."

If I have control over something, I will do what I can to alter it until it works better for me, but there are some things that I know I just don't have control over and I have to be okay with it. So it's just kind of, yes, that's how it's going to go. That's fine. We'll just make do. And

it's really just so much stress out of my life just to be able to say, yep, that's fine. That's how we're going to do it because the stress that I would feel when things don't go my way doesn't help. It doesn't matter if it's not the way I envisioned it. Because I can "what if" all day. This is what my internship looks like and this is what it's going to be. I'm going to take any opportunity that's given to me, but I'm not going to complain because I don't have time for stress like that. I don't. I really don't.

Instead, I decided to take control over how much I grew over the course of the year. I could control the attitude I had when I walked into the building each morning. I could control the relationships I built between myself and the staff. Although I knew some of my peers were able to co-teach more quickly or had CTs who were more organized, I decided not to get frustrated or be envious of their placements. I decided to own my placement and take charge to make it the best one out there.

I'm not saying I'm perfect. I've definitely screwed up some this year. The first week of school I was so frustrated with the way the students talked to me. "If you're not going to respect me, then I'm not going to respect you," I told one of them. But I realized, I can't control them either. What I did have control over is how I made my students feel. My student population was tough and rough. They threw punches more than they threw words at each other. One day I apologized to a student for getting frustrated with her and she surprised me by giving me a bigger apology. She became my favorite student, and she grew a lot over the year. She called me "her person" at school. I learned that if I appreciate them first, they will appreciate me back. I needed to model the behavior, the feelings, that are important in being a good person. I was there to teach math content, but a teacher's real job is to help mold good people. What kind of people do I want to see in the world? I decided to start with the ones in my classroom.

Not all my days were inspirational. Sometimes I had really bad days. Sometimes I cried it out in the car, worked it out at the gym, or ran to the teacher bathroom between classes to compose myself. My students pushed me further than I could have imagined. They frustrated me, annoyed me, made me laugh, and begged for my attention. It's true when they say the ones that need the most love are the ones who ask for it in the most unloving of ways. Even though I'm not a parent, or a hug-loving type of person, I decided to love all of my students and reap the rewards that came with that.

In the end, I became a "say yes" person. I decided—I'm just here to say yes. It's relieved so much stress from my life. My level of flexibility has expanded so far. You need to change your partner in class? Yes. You need to come in before school and get help with something? Yes. You need to come during lunch? Yes. You need half my lunch because yours is awful? Yes. It's my job to teach you how to do these things, but it's also my job to get it to you in a way that you get it. And it's not usually my way. And that's fine.

This same principle applied to my relationships with my mentors. This year was the last year when it was going to be all about me where I have my peers and my mentors to help me. At first I was frustrated because it seemed like Mrs. Green was never there. I was kind of like, no, you have to be there. Mrs. Green, this is about me learning. You have to be present. And it bothered me a little bit, but then I realized, I'm going into teaching. And teaching is never what you want it to be. Never ever.

Instead, I decided to keep an open mind and enjoy this season of life. It wasn't everything I hoped and dreamed, but in the end it was more than I could have ever imagined. This year was a gift. I'm so glad I embraced my support system and established good relationships. I asked so many questions this year, but I know there will be more. This was the

last year that I will be surrounded by my cohort, my professors, and my supervisors, but the

relationships I have built will live on. I know that even though Mrs. Green retired, she'll still

pick up the phone when I call. And even though Melody moved back to her home state, I know

she'll still get excited about my lesson plans and share ideas with me whenever I reach out.

Chapter 5: Assertions

In analyzing the reports for each case, I was able to make assertions that related across the cases to answer the research questions about fieldwork collaborations. I also discovered some contextually unique findings that have implications for the study of fieldwork collaborations. In this chapter, I will discuss each of the assertions that arose from the case reports, organized by the research question they help to answer. These question-related assertions will be followed by two contextually unique assertions.

Research Question 1: Individual and Collective Experiences

The first research question asked: What were the experiences, needs, and expectations of the novice, school mentor, and university mentor as they collaborated during the final fieldwork experience? How did these educators see their roles as members of the triad? The case reports provided evidence that the individual and collective experiences of the novices and mentors were mediated by the strength of the relationships formed, the manner in which novices handled issues of power, and the way frustration and conflict were addressed. The data also showed that the roles and responsibilities of novices and mentors were defined differently by each member of the collaboration, a phenomenon that affected the purpose of the fieldwork collaboration itself.

The strength of the relationships formed. The literature provides evidence that strong and productive relationships are essential for effective fieldwork collaborations (Burns et al., 2016; Nolan & Hoover, 2004). In this study, evidence of strong relationships was found in each case report. In two of the cases, the strongest relationships were built between the novice and his/her school-based mentor. Billy and Danny and Fiona and Sophia built strong personal and

professional relationships by eating, planning, teaching, and reflecting together daily. Though she did not share the same personal connection with her mentors, Victoria also established strong relationships with Ann and Cam, as evidenced by their ability to re-negotiate expectations throughout the school year.

As the university-based mentor, I did not experience as close a bond with the residents or school-based mentors as they did with one another. I was able to establish strong relationships with each of the triad members, however, by providing structure to the residency program and maintaining flexible availability to each of them by phone, text, email, or in person throughout the school year. All three novices commented that they could count on my availability and support at all times.

These relationships were not formed quickly. Instead, our respect for and trust in one another grew as we learned more about each other. Fiona's story is a good example of this phenomenon. Though Fiona had some trepidation about Sophia's ability to mentor her with so many other responsibilities, she grew to respect Sophia's approach to teaching and her genuine care of the students. Danny's and my relationship in Billy's case is another example of this growth. Danny and I had a professional but distant relationship until we began to see the strengths the other had to share with Billy. In particular, after Danny experienced the effects of some of the observational tools I used with Billy and I listened to Danny talk about his perspective on Billy's residency, our relationship grew much stronger.

The ability of these relationships to grow depended upon the connections made between collaborators and the willingness of collaborators to communicate openly with each other. In each of the three cases, we established flexible relationships in which our responsibilities could be negotiated as needed. Victoria's triad is a good example of this kind of flexibility. Though

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all four of us were highly invested in Victoria's growth and success, each of us took a step back as needed to allow Victoria to get what she needed from the others. Likewise, as Sophia's responsibilities at Oleander ebbed and flowed, Fiona and I adjusted our expectations and responsibilities to make sure Fiona was getting what she needed from her residency experience.

Issues of power. As expected from the research on fieldwork collaborations (e.g., Kaasila & Lauriala, 2010; Valencia et al., 2009), issues of power were present in each case. In all cases, the novices began the school year from a position of reduced power. Each novice was dependent upon his/her mentors for guidance, evaluation, and ultimately graduation. How these power dynamics manifested in each case, however, was largely dependent upon the approach of the novice. Novices who were willing to accept their own reduced power and build trust relationships that allowed them to take advantage of the power they could wield had an easier time dealing with that reduced power.

As the supervisor, it took me some time to accept that I could not change these power dynamics. My intentions for the year were to create more equitable collaborations in which the novice and his/her mentors approach conferences and observations on a level playing field. At the beginning of the semester, I used a number of tools to establish a more equitable collaboration among myself, the novice, and the school mentors. I insisted that novices set their goals and consider the kind of data collection that might aid in meeting those goals (Sullivan & Glanz, 2013) and I placed the resident in the center of the collaboration (Sergiovanni & Starratt, 2006). Still, when I listened to the stories of the novices, I heard their struggles with power.

Each novice accepted his/her own reduced power as a part of the process. As the novice teacher working towards graduation and certification, Billy, Victoria, and Fiona all accepted that they would have less power than their mentors. For them, it was no different than the sixteen

years of student life that preceded this residency. And yet, it was different. In this setting, they would need to take on some power because they would be the teachers. How each of them utilized their reduced power is what set each of their stories apart.

Billy chose to accept his reduced power and, in trusting Danny, bestowed power upon someone he trusted. He was confident that Danny had his best interests at heart and that Danny would listen when Billy needed to renegotiate the terms of their power dynamic. Billy's trust in Danny was rewarded as his autonomy in the classroom grew.

For Victoria, her reduced power was like a set of boundaries. She moved within her boundaries, but did not venture outside them or attempt to renegotiate them. Instead, she was willing to ask questions about her teaching, her planning, and her program, but only if those questions did not impact the power of her mentors. For example, though she wanted to know more about Ann's teaching style, she was unwilling to challenge Ann's power, so her questions went unanswered and her frustration grew.

In Fiona's case, her reduced power was only a starting place. Throughout her residency, Fiona looked for her power and found ways to make it work for her. Rather than focusing on the aspects of her residency that she could not control (e.g., her placement, her CT, her students), Fiona focused on those areas where she did have power (e.g., her attitude, her interactions with the students). As the year progressed, her ability to find her own power resulted in increased autonomy. For example, at one point in the year, Fiona exercised her power by choosing her own collaborating teacher—she found a way to bow out of Susan's classroom.

Each novice accepted his/her own reduced power. None of the three struggled against it and yet all three successfully completed their residency year. This finding appears to be in direct opposition to expectation state theory, an theory about group power dynamics which states that

members of a group who have a lower status in a group are expected to be less active than those who have higher status (Kaasila & Lauriala, 2010). In the cases presented in this study, however, the novices—who have the least power in the collaborations—are not the least active members of the group. Indeed, as the year progressed, two of these novices—Billy and Fiona— became the most active members of their collaborative groups. Perhaps this phenomenon can be explained because the words *status* and *power*, though often used interchangeably, are not synonyms. Though the novices had the least amount of power, they did not have the least amount of status. Instead, they were the focus of all three collaborations. In each case, the mentors developed a shared vision for the purpose of the residency: the autonomy of the novice. As such, the status of the novices was heightened even as their power was diminished.

Frustration and conflict. Though each case tells the story of fieldwork that resulted in the graduation of a novice, frustrations and conflict arose for each collaboration. How those frustrations and conflicts were navigated depended upon the willingness of the collaborators to connect with one another. As recommended in the existing research on fieldwork collaborations (Loughran, 2006; Sullivan & Glanz, 2013), stronger, more empathetic connections made it easier to resolve frustrations and conflicts.

Consider, for example, Billy's connections to Danny and myself. Danny was conflicted about allowing a novice to teach in his classroom because he was concerned about the quality of teaching, yet he felt equally strongly about the need to mentor the next generation of teachers. By getting to know Billy as a person and form a strong connection with him, Danny was able to resolve these conflicts and trust Billy in the classroom. By comparison, my relationship with Billy was not nearly as close. Billy was frustrated with me because he did not receive the kind of feedback that he would have liked, especially in the beginning of the year. Because the two of us

were not connected in the same way that Billy and Danny were, I was not as empathetic to Billy's frustrations and was not able to distinguish between the type of guidance novices usually wanted from me (how to teach) and the kind of guidance Billy really wanted (how to think about planning). As a result, I was not able to help Billy resolve that conflict.

Victoria's case provides another example of this kind of missing connection. Though she was able to renegotiate aspects of her residency with Ann and Cam, Victoria's relationships with each of her mentors (including me) were less personal than the relationships found in Billy's triad. Considering her perception of the boundaries created by reduced power, Victoria chose not to examine the differences between Ann's teaching styles and her own. Neither formed an empathetic connection with the other and so Victoria's frustrations went unexplored and unresolved.

Defining roles and responsibilities. The mentors and novices were defined by their collaborators in a myriad of ways. Predominantly, novices were expected to be resilient and resourceful and mentors were thought of experts in their fields who could offer structure and support.

One thing all three cases had in common was the perception that the novices in each case were able teachers who were working to develop themselves professionally. Regardless of the closeness of the relationships formed, all three novices were seen by their mentors as able to teach the mathematical content. Rarely did conceptual issues arise in collaborative conferences. When such issues were addressed during collaborative meetings, the topic was usually brought up by the novice him/herself. This ability to assess their own understanding added to the perception of ability.

What mentors expected novices to do in the classroom, however, varied from mentor to mentor and evolved over the course of the year in most cases. As the representative of the university program, I expected novices and school mentors to co-teach during instruction because that was the structure promoted by the program. Danny, Billy's mentor, expected Billy to eventually take over Danny's entire school day by the end of the year. Considering Danny's class load, which was not typical of a beginning teacher, and Billy's university coursework, however, the two were able to renegotiate these expectations to find a better fit for Billy. Ann and Cam, Victoria's mentors, differed in their expectations of Victoria's role in their classrooms. While in Cam's classroom, Victoria was expected to assist while Cam taught, but in Ann's classroom, Victoria was treated as a partner who shared in the responsibilities of planning and instruction. Fiona and her mentor, Sophia, underwent a full evolution from Fiona-as-assistant to Fiona-as-partner over the course of the school year. Though the expectations in each of these cases was different, they were understood by both the mentor and the novice.

The roles and responsibilities of the mentors were established in a similar way. In all three cases, the novices and mentors saw the university-based mentor (me) as providing structural support to the residency program. School-based mentors were seen as the day-to-day classroom experts. The way that expertise was manifested in the day-to-day life of the classroom, however, was different for each case. For Billy, Danny's expertise was a natural part of his persona. Rather than formalized mentoring or planning sessions, Billy and Danny talked about teaching as they worked side by side throughout the day. Their relationship promoted an ongoing type of mentoring made up of the little things that happen in the classroom. Because her schedule was more regimented than Billy's, Victoria's time with her mentors needed to be scheduled more formally. Victoria set aside specific times to work with Ann and/or Cam to plan

instruction, create assessments, grade, explore the district's learning management systems, and consider countless other day-to-day teaching tasks. For Fiona, Sophia's duties at Oleander made her more of a spectator to Sophia's expertise than the direct recipient of it. She observed Sophia with the other teachers at the school and with the students during instruction while working alongside her. When Sophia was out of school for a week attending her father-in-law's funeral, Fiona was able to step into Sophia's shoes and work with the staff and students in a new way.

The roles of the novice and mentors, though well defined by each for one another, did not adhere to a strict structure established by the university program. One of the gaps in research concerning teacher preparation fieldwork collaborations has been the lack of definition for novice and mentor roles. Researchers have called for longitudinal studies (Abell et al., 1995; Guyton & McIntyre, 1990) that explore the perspectives of all collaborators (Rhoads et al., 2011; Zeichner & Conklin, 2008), the expectations of collaborators for one another (Rhoads et al., 2013), and the context within which collaborations occur (Loughran, 2006). This study has contributed to our understanding of the roles that are generated in fieldwork collaborations. Other researchers have asked questions about what the roles of novices and mentors *should* be (Abell et al., 1995; Slick, 1997; Valencia et al., 2009). Should mentors be evaluators? How defined should collaborators' roles be? The cases presented provide evidence that novices and their mentors are capable of establishing and negotiating roles to meet the needs of the novice. Well-defined roles were very useful, but the precise definitions were generated by the triads, not by the university program.

Purpose of collaboration. Because of the varied ways novices' and mentors' roles were enacted in the classroom, the perceived purpose of collaboration differed from triad to triad. A common theme that emerged, however, was the intention to "do right" by the novice. The

mentors in each case wanted what was good and right for the novices.

For Danny and Ann, working with a novice was a way for them to give a new teacher something they had never experienced: guidance and mentoring. Both Danny and Ann came to teaching as a second career after having worked in the corporate sphere. For them, the first year of teaching was filled with hard-won lessons that resulted from a great deal of trial and error and stress. Mentoring a new teacher was their way of giving back to the next generation and alleviating some of the stress they had experienced in their first years.

For Cam and Sophia, though, taking on a resident was a way to enhance instruction. Both Cam and Sophia were veteran teachers who felt confident with their own expertise in the classroom. Bringing in a novice teacher would benefit their students by adding "another set of eyes and ears and hands" to the classroom, as Cam phrased it.

As the university mentor and a teacher educator, I was most interested in helping the novices learn how to navigate the world of teaching by exploring the available resources. I was most concerned that they use their residency experiences to set professional goals for themselves, collect data about their goals, and reflect deeply about their teaching.

For all of the mentors, however, there was a certain element of "gatekeeping" involved in our work with the novices (Goodwin & Oyler, 2008; Nolan & Hoover, 2004). All five of us saw our role as making sure the novices were able to teach independently after graduation. We felt a responsibility to the students these novices would encounter as first-year teachers. It did not take long for us to develop trust for the novices and focus our energies on support (rather than evaluation), but that gatekeeping mentality was present for all of us.

The novices saw two purposes for their residencies. All three saw the residency year as the last step towards graduation and earning their teaching degrees. For them, this year was the

end of a long journey towards a Bachelor's degree and a "real" job. To a certain degree, though, all three also saw the residency experience as the last chance to have teaching be "all about them", as Fiona said it. This year was their last opportunity to have mentors who were focused on their success, to have a buffer between themselves and parents and administrators, and to abdicate responsibility for year-end tests. This was the last chance to be more *student* than *teacher*.

Research Question 2: Opportunities for Phronesis

The second research question asked: How did the novice and his/her mentors use their experiences, needs, expectations, and role perceptions to work together within the triad to create opportunities for novice phronesis? I assert that novices in these fieldwork collaborations learned by doing and reflecting, combining the experiences and guidance of their mentors to develop their own pedagogical beliefs about mathematics teaching and learning. I further assert that the mentors in these collaborations developed trust in the novices that provided them the opportunities to do so.

Learning by doing and reflecting. In all three cases, the mentors provided novices with opportunities to struggle with planning and instruction. In Fiona's case, for example, even though Sophia was disappointed to hear Fiona respond to a student's disrespect with, "If you're not going to respect me, then I'm not going to respect you" early in the year, she did not address this issue with her directly. Instead, Fiona was able to learn from her interactions with students that respect must be first given before it can be received. Billy was given the opportunity to struggle with classroom management issues while Danny and I collected data that Billy would use to reflect on his teaching. Victoria's beliefs about assessment changed as she worked with Ann and Cam and observed the way they gathered data about student understanding. Likewise, I

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repeatedly asked novices in all three cases to reflect on their teaching and talk about how what they learned would affect their teaching decisions.

All of these approaches to novice learning are counter to a trend in fieldwork that views classroom teaching as practice for *real* teaching that will come later (Goodwin & Oyler, 2008; Loughran, 2006; Zheng & Webb, 2000). In this view, mentors need not engage in meaningful conversations that may involve criticisms or other difficult interactions. Instead, it is their task to boost novices' confidence by avoiding subjects that could cause discomfort or frustration (Slick, 1997; Valencia et al., 2009). Instead, the collaborations presented in these cases engaged novices in meaningful dialogue about their teaching. Though mentors took advantage of opportunities to praise the novices, they also did not shy away from asking difficult questions or asking novices to reflect more deeply on their teaching. For example, in Victoria's case, Ann attempted to engage her in conversations about her presence in the classroom. Though Victoria chose not to delve too deeply into an issue that she believed would be uncomfortable, her mentor was willing to have a difficult conversation in order to address what she saw as an opportunity for growth in Victoria's teaching practices.

Developing an independent pedagogy. As the novices struggled with the decisions involved in planning, teaching, and assessment, they formed their own pedagogical beliefs about mathematics teaching and learning. In many cases, these beliefs were adopted from their mentors. As noted above, Victoria adopted her mentors' beliefs about assessment and began to look for ways to gather data about student learning that did not depend on traditional tests. Fiona's beliefs about the "team" structure of the mathematics faculty were a result of her observation of and involvement with Sophia's work with her colleagues at Oleander. Billy's daily work and talk with Danny gave him an inside view of Danny's approach to a myriad of

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teaching decisions. As a result, Billy adopted many of the same attitudes towards planning,

instruction, and assessment.

Some novice beliefs, however, were developed in contrast to their mentors' beliefs. For

example, both Fiona and Victoria found aspects of their mentor's beliefs that they did not want

to emulate. Fiona was disturbed by Susan's tendency to work in isolation from her peers and

Victoria found that her pedagogy aligned more closely with Cam's than with Ann's. Billy, too,

identified some aspects of Danny's pedagogy with which he disagreed as he analyzed his

students' engagement during instruction. In several cases, he found students' "fidgeting"

behaviors useful to student thinking. when Danny found them distracting to others.

Mentor-novice trust. The mentors promoted this attitude of independence. As novices

struggled productively in the classroom and developed their own beliefs about mathematics

teaching and learning, the mentors showed a great deal of trust in them. In this high-stakes

teaching environment where teacher pay is greatly influenced by student achievement, it is a

struggle for many school-based mentors to relinquish control of their classrooms to novice

educators. Danny said it particularly well:

> Sometimes I get a little nervous about the teaching and having an intern, but [he
>
> pauses and shrugs] how else? How else? And you know, it all works out. Kids
>
> will fix things. They'll understand things and you just move on, you know?
>
> (Danny, 2016, interview).

Danny's struggle was echoed in his colleagues' comments as they reflected on their

experiences. Sophia noted that often she wanted to pull Fiona aside and explain why she

should or should not react a certain way in the classroom, but she knew it would be more

effective for her to figure it out on her own.

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In the end, their trust was justified. All three novices were able to make gains in their pedagogical understanding and establish real and productive relationships with their students. Mistakes were certainly made in all three cases, but the novices learned from them and the mentors developed an appreciation for the novices' ability to work through their struggles. Again, we hear from Danny as he reflects on Billy's residency: "You make the fire. We'll put it out. We'll put it out. This is how I would put it out, okay? You try to put it out. Ooh, explosion! It's okay. Let me step in. Let's help with that." As he talked about Billy's work in the classroom, he chuckled and reflected on his own first years of teaching. By working through these "explosions" during his residency, Billy would have a better first year than Danny himself had.

Other researchers have reached similar conclusions about how essential trust is to a collaborative relationship (Abell et al., 1995; Cherian, 2007; Nolan & Hoover, 2004). Many researchers have provided counterexamples to this idea. In Bullough and Draper's (2004) account of Mrs. K and Dr. Z, they showed how destructive a lack of trust can be for the collaboration. Likewise, Slick's (1997) story of Steve and his school and university mentors, Kate and Helen demonstrates the way disconnection among the triad can create a vacuum of information that stops the professional development of the novice.

Research Question 3: Effects of Storytelling

The third research question asked: What were the implications of the purposeful sharing of stories with one another on the final fieldwork collaboration? How did the sharing of stories change the way those stories were enacted? Did the sharing of a story provide unique opportunities for novice phronesis? I assert that the collaborators in these triads benefited from sharing stories. Doing so helped them to form meaningful connections with each other that

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revealed different approaches to the professional development of the novices and created a more empathetic context for doing so.

      Forming meaningful connections. In some ways, the sharing of stories intentionally for research was no different than the personal connections novices might have developed with their mentors without the study. Daily interactions between novices and their school-based mentors tend to naturally result in the sharing of both professional and personal stories. As humans, we naturally share stories to illustrate our perspectives or decisions (Carter, 1993). I, too, would have naturally entered into this kind of discourse during conferences and other school visits. As an extroverted person, I readily share stories about myself with others and want to hear their stories.

      In some situations, however, storytelling becomes much more difficult. Consider, for example, Victoria's case. In her interactions with her mentors, Victoria withheld much of her own thinking because she was wary of delving too deeply into pedagogical beliefs. She did not want to engage in any direct debate about the differences she perceived between Ann's beliefs and her own. Though sharing stories during individual and group interviews did not change Victoria's willingness to share her pedagogical beliefs, Ann, Cam, and I were able to learn more about her reasons for becoming a teacher, her course load at the university, her concerns about wanting to make better connections with students, and her family's view of her program. Without intentional story sharing, Victoria might not have had the opportunity to learn about our reasons for teaching, our perspectives on collegial work, or information about our personal lives. These perspectives were important in bringing Victoria into a more personal connection with her mentors.

In contrast to these stories of connection is a single story of disconnection. At the beginning of Fiona's residency, she reported to two school mentors, Susan and Sophia. Susan had a great appreciation for the autonomy teachers enjoy behind the closed doors of their classrooms. She was not interested in collaborating with her colleagues and not particularly interested in working with a novice. Susan was never a formal part of our collaboration at Oleander and did not welcome questions from or share stories with Fiona. As a result, the two were very disconnected. Fiona grew to be wary of Susan's approach to teaching and uncomfortable with spending time in Susan's classroom. Though it would be arrogant to use a cause-and-effect statement to link the two, Susan's reticence in sharing with Fiona adversely affected their relationship, a relationship that was eventually ended by Fiona.

Contrasting approaches to professional development. In many ways, our story sharing revealed not only differing beliefs about mathematics teaching and learning, but also about teacher education. As a novice teacher educator engaged in both teaching and learning about mathematics teacher education, I approached supervision from the perspective of the university I was attending. As school-based mentor educators entrusted with the day-to-day work of mentoring novice mathematics educators, the mentors with whom I worked approached the residency from a variety of perspectives based on their own experiences. Because of our contrasting viewpoints, we sometimes worked at cross purposes.

By sharing stories with one another about our experiences and purposes, we could each consider one another's approach to the residency from a context different from our own. For example, Danny and I approached our roles as Billy's mentors from different perspectives. I withheld a great deal of my thinking in order to promote Billy's own thinking. Danny, on the other hand, shared all of his thinking with Billy with the same intentions. At first, these

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approaches were confusing and somewhat frustrating for me. I worried that Billy would end up

thinking too much like Danny and not be able to think for himself. During the second semester,

however, we were able to share stories about our perspectives on the residency during an

interview I conducted for this study. As I spoke about the previous year of supervision, I

expressed disappointment in my own ineptitude during that first year. Empathizing with my

novice status, Danny shared a story about how inept he felt during his own first year as a teacher

leader in the district. As our relationship developed, he and I were able to empathize with and

find merit in the other's approach to our work with Billy and recognize that we both saw Billy's

pedagogical autonomy as the most important outcome of the residency.

Sophia and I shared a similar experience as we worked with Fiona. From the beginning of

our relationship, both Sophia and I recognized our contrasting pedagogical beliefs. As the

supervisor, I was concerned that Fiona would have limited opportunities to engage in inquiry-

based approaches to instruction. As the collaborating teacher, Sophia was concerned that I was

disconnected from their students and setting unrealistic expectations for Fiona. As our

relationship developed, we discovered we were both right and both wrong. Sophia's mindset

about teaching and learning was fixed where her own teaching was concerned, but she was very

open minded about Fiona's role in her classroom. I was definitely disconnected from their

student population and had some unrealistic expectations for their classroom, but I was not

unable to learn and adjust. As Sophia and I shared stories, we each learned to respect the other's

experiences and empathize with the decisions the other made to support Fiona. As with Danny,

Sophia and I were able to unite in our support of Fiona to appreciate one another's expertise.

The effects of not telling. Another common theme across all three cases was the regret I

felt for not sharing stories sooner. As I saw the effects of storytelling enhance the professional

development opportunities for the novices, I reflected on all the lost opportunities that might have been. One recurring regret was my own reticence in sharing my thinking with the novices early in their residencies. I had what I thought were good reasons for holding back. I wanted the novices to have the opportunity to struggle with their developing pedagogical beliefs about mathematics teaching and learning. I also did not want to impede the relationship that was forming between the novices and their school-based mentors by providing feedback that might be challenging or contrary to well-established classroom norms. Despite my good intentions, however, my reticence frustrated all three novices in their early observational cycles when they craved direct feedback and instruction. I cannot help wondering: If I had been more open about my reasoning for not providing such feedback, would I have provided the novices greater opportunities for phronesis? Could Billy have asked his questions in a way that communicated his desire to understand my thinking rather than emulate it? Could I have started conversations with Victoria, Ann, and Cam that began a more comfortable conversation about differences in pedagogy? Could Sophia and I have provided Fiona (and ourselves) with a more equitable relationship from the very beginning of semester? Though I cannot possibly know the answers to these questions, having them in my mind is likely to change my early approach in the future.

Contextually Unique Assertions

Though they do not answer the research questions in the sense that they related to all three cases, the following two contextually unique findings provide additional insight into the experiences of two of the novices, Fiona and Victoria. These unique findings have implications for the study of fieldwork collaborations and are included in this chapter as the beginning of a conversation about two ideas I did not set out to study.

Victoria's story of hidden conflict: No regrets. When conflict arose for Victoria, she

did not share her frustrations with the other members of her collaboration. Instead, she chose to find places to release her frustrations without resolving them by talking with other teachers at her school or calling her sister to talk about her experiences. According to Victoria, her reason for doing so was because she felt her own diminished power and, though she did not resent it, she also did not feel comfortable taking actions she saw as counter to it.

Despite Victoria's hidden frustration, she had no regrets about her residency experience. As her supervisor, this calm acceptance seemed impossible. Surely there was something I could have done to have circumvented or resolved her frustrations. When I shared my thoughts with her, she was firm in her resolve—she had no regrets about the year. If she had it to do over again, she would change nothing. If she had to give advice to someone with a similar temperament to hers in a similar situation, she would tell them to accept the fact that people's personalities don't mesh, accept that you can't have everything you want, and remember that the situation is temporary.

I am still astounded by Victoria's acceptance of her own frustrations and her inability to resolve them. Victoria's case is one I would have liked to have explored further by opening the issue to both Ann and Cam, but at Victoria's request, I did not share this portion of her story with them. Victoria was happy for me to use her story in its entirety for my dissertation study, but chose not to risk opening dialogue with her former mentors now that she is in her first year of teaching.

Fiona's story of her focus on the students: Reaching the next level. Fiona's story provides evidence of a level of teacher development not present in the other two cases: she was able to focus more on her students than on her own struggles as a teacher. Nolan and Hoover (2004) would rate Fiona's teaching as being in the *impact phase* of teacher development. In

discussing the ways novices learn to teach, Nolan and Hoover detail three phases that novices work through as they develop into independent teachers: survival, task, and impact. In the survival phase, novices are focused on completing their requirements and keeping up with the pace of daily teaching. The task phase describes a novice working to refine specific teaching skills (classroom management, content, etc.), but still ultimately focused on him/herself. In the last phase, impact, novices are focused on students learning. Novices talk about their students more often than they talk about themselves.

In the cases presented in this study, two of the three novices were working in the "task" phase. Their talk during conferences and other collaborative events centered around improving specific aspects of their teaching. They wanted to improve classroom management, student engagement, etc. The third novice, however, reached the impact phase. Fiona's talk often revolved around students and their needs. When she investigated specific aspects of her own teaching, it was motivated by student need rather than the requirements of the program.

It is possible that Fiona's ability to reach this third level was aided by the fact that her students were so very unique. No other resident worked with students who were as behaviorally or academically challenged as the students at Oleander. Because of her willingness to learn from her students, her empathy for the needs of her students was great and she was able to focus more fully on them. Or perhaps her ability to reach the impact phase could be attributed by the heightened autonomy she was awarded by her mentors. No other novice in the program was permitted to alter his/her fieldwork placement and no other novice led collaborative teacher meetings in his/her school. Only Fiona reached this level of autonomy over her professional life. Like Victoria's dilemma, Fiona's case would be useful for more thorough study to explore the factors that contributed to her more advanced progress during fieldwork.

Chapter 6: Discussion and Implication

This study provided insight into the experiences of three triads working together to prepare new teachers of mathematics. In these three triads, the novices and mentors shared some common experiences and demonstrated unique opportunities and conflicts that arose from the individual experiences and perceptions revealed through storytelling. Though these three triads are a small part of the teacher preparation efforts undertaken by novices and their mentors in the 2015-2016 school year, their stories provide insights into fieldwork collaborations. In this chapter, I will discuss the findings and make recommendations for future study.

Theory versus practice divide

One of the most common frustrations in fieldwork collaborations is the disconnection between the instructional strategies and educational theory promoted in university coursework and the expectations for day-to-day instructional practices in the K-12 classroom (Cherian, 2007; Loughran, 2006; Zeichner & Conklin, 2008). Although that dilemma was present in these cases, it did not disrupt the workings of the fieldwork collaborations. The relationship between Sophia and me provides evidence that two mathematics educators with conflicting pedagogical beliefs need not be in conflict themselves. Both Sophia and I were able to maintain our beliefs without allowing those beliefs to negatively impact Fiona's residency experience. To accomplish this feat, both of us focused on Fiona's needs and listened to one another respectfully and without harsh judgment. In other words, neither of us could "win" the battle of beliefs. Instead, we had to listen carefully to Fiona's needs and support her, both together and individually.

Sophia's and my story contrasts with the story of Dr. Z and Mrs. K told by Bullough and Draper (2004). In that story, neither Dr. Z nor Mrs. K spoke directly to one another about their pedagogical differences. Instead, both educators took steps to circumvent the other's position as mentor by using the school's principal as an intermediary to real collaborative work. Both mentors were highly invested in the success of their students and their shared novice, but neither was willing to see the merit in the other's approach. Sophia and I used a different approach. Instead of avoiding one another, we dealt directly with our differences. We had conversations in which each of us talked about her beliefs and the reasons for those beliefs. We made the time to listen to the one another's stories. Though we did not resolve our beliefs or even find common ground (other than Fiona), knowing that we both had the ability to listen to the other made a difference in the way we collaborated for Fiona.

The implications of our story for fieldwork collaborations are twofold: (1) avoiding uncomfortable conversations is destructive to collaborative efforts and (2) identifying and accepting our differences are essential components of a successful collaboration. Mentors from both the university and the school have a responsibility to engage with one another to better understand the "underlying beliefs about each other's roles and practices" (Norman, 2011, p. 50). As university-based mentors, then, it is our job to develop respect and appreciation for the contributions of our school-based counterparts. School-based mentors have a similar task. As they welcome novices and university-based mentors into their classrooms, school-based mentors should seek out opportunities to better understand the pedagogical stance of the university program so that they can work with novices more effectively. To be clear, understanding the pedagogical stance may not necessarily mean adopting it, but empathizing with and possibly

gaining an appreciation for the efforts of one's mentoring counterpart can create a collaborative culture in which the novice will be able to grow.

Flexible roles = flexible power

In the triads presented in this multi-case study, the roles of each triad member were defined and negotiated by the group. In many cases, those roles evolved as the year progressed. In each case, the role of the novice changed to become more autonomous as he/she gained experience in the classroom. Though the novices began as students of teaching who were guided by their mentors in setting goals, planning lessons, and reflecting on their teaching, these same novices ended the year as autonomous teachers who set their own goals, planned entire units complete with assessments, and made teaching decisions that altered instruction. Likewise, as the mentors trusted the novices with increased autonomy, they reduced their own decision making roles in the classroom and in the observational cycles and conferences.

This transfer of trust and flexibility of roles created a kind of flexibility of power as well. Though the power dynamics of each triad swayed in favor of the mentors at the beginning of the school year, the novices were able to exercise their own power over their professional growth and the learning of their students. Throughout the year, the mentors in each case encouraged the novices to set professional goals, plan lessons, and reflect on their own teaching. From the beginning of the school year, I (as the university mentor) established my expectations for the novices: by the end of the year, I wanted novices to be able to set professional development goals, decide on data collection methods for studying those aspects of their professional development, and reflect upon their progress in meeting those goals. The school-based mentors also set their expectations: they wanted the novices to be planning and executing lessons independently by the end of the school year. By establishing this expectation of autonomy early

in their fieldwork, novices understood that we (their mentors) expected them to find and use their own power as the year progressed.

Setting expectations like those described above connects to the dilemmas identified in fieldwork collaboration research. Because fieldwork roles are often ill defined (e.g., Allen et al., 2014, 2014; Fenta, 2015), novices adopt the roles they believe will satisfy their mentors (Valencia et al., 2009; Veal & Rikard, 1998). Because they live in a tension between the roles they think they should be playing, novices have difficulty identifying and achieving their goals (Valencia et al., 2009). By deliberately engaging in conversations about our roles and expectations, the novices in these cases did not experience the same tensions usually identified in fieldwork and were able to claim greater agency for setting and achieving their own goals.

It is important to note that the balance of power was never truly even. Novices were always subject to the power of their mentors, especially in terms of grades and recommendations. The power disparity between novices and mentors, however, decreased as the year progressed. Novices made more decisions about the professional development goals and, in some cases, even countered their mentors' suggestions with suggestions of their own. During instruction, novices were either teaching independently or co-teaching with their school-based mentors in a more equitable way. For example, Billy and Sophia both often taught their mentors' classes when they were absent or attending to other duties at the school. The implications for this flexibility on the field of teacher preparation fieldwork is the acceptance that power will never truly be even, but striving for a more equitable power structure nonetheless. Mentor educators, who are automatically endowed with greater power, must seek out ways to increase the power of the novice educators with whom they work by establishing open and trusting dialogue with one

another and with their novices. Novices, likewise, must be willing to embrace the

responsibilities entrusted to them and engage in the dialogue established by their mentors.

Storytelling

This study illustrates the potency of storytelling as a collaborative tool. In collecting data

about my collaborators' experiences, I exchanged stories with them—stories about our work, our

perspectives, our expectations, our histories, and more. As Carter (1993) reminds us,

> stories are especially useful devices for dealing with situation, conflict, or
>
> obstacle, motive, and causality. In creating stories, we are able, therefore, to
>
> impose order and coherence on the stream of experience and work out the
>
> meaning of incidents and events in the real world. (1993, p. 7).

Carter's words stand as a reason to use stories in the study of teacher education, but there are

further implications for collaborating during fieldwork. By exchanging stories with one another,

the collaborators in these cases (myself included) developed more empathetic relationships with

each other that made it easier to listen, to consider others' needs, and to enter into discourse in

more productive ways.

The relationship between Billy and Danny is a good example of the power of sharing

stories. When asked to provide a "final story" of the residency experience—a story that would

define their experiences within our collaboration—both Billy and Danny cited their daily lunch

chats as the best description of their experiences. Sharing a meal and, in the process, sharing

their thoughts and ideas and experiences—their *stories*—with each other gave them insight into

one another that built a strong and productive relationship. Cam and Ann shared a similar

experience. Because they knew so much about each other and had spent so much time teaching

together and reflecting on their students' successes and failures, they knew precisely how to

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approach one another with difficult subjects. During our conferences with Victoria, it was often as if they were one collaborating teacher, not two.

In contrast, Victoria's relationships with her mentors were shallow. Her lunch and planning periods were often spent outside her mentors' classrooms and she shared very little of her own experiences with them, personally or professionally. It was not until the formal data collection began that she and I shared stories with each other. At the close of the school year, many of Victoria's frustrations went unresolved because she chose not to reveal them to her mentors. Though I would not be so bold as to claim a cause and effect relationship between the two, it seems apparent from cross-case analysis that Victoria's frustrations might have been lessened by a more meaningful connection to her mentors.

Burns, Jacobs, and Yendol-Hoppey, in their review of literature on fieldwork supervision, discovered a similar phenomenon that they summarized as four practices that could be used to build strong fieldwork relationships: "(1) establishing a readiness for analyzing practice, (2) developing interpersonal familiarity with all stakeholders, (3) creating a culture of trust and collegiality, and (4) modeling caring and fidelity" (2016, p. 67). Each of these practices is concerned with understanding and empathizing with collaborators. During teacher preparation fieldwork collaborations, then, it is essential that mentors and novices take the time to get to know one another to better understand the experiences, needs, and role perceptions of one another. In doing so, novices and mentors develop a vested interest in one another—learn to *care* for one another's experiences, needs, and role perceptions. With so much uncertain in the role definitions, purpose, and training of fieldwork collaborators, a deeper connection has the potential to generate more empathetic—and ultimately more productive—fieldwork experiences.

Implications for Designing Future Research

The cases presented in this study were investigated using a multi-case design with an emphasis on storytelling. The stories produced are unique in that they provide insight into the experiences of all members of the collaborative triads. As such, the methods I used for data collection and analysis and the perspective from which I approached the work offer up some recommendations for designing future studies into teacher preparation fieldwork collaborations.

Story collecting and storytelling. As noted above, I engaged in this research through the collection of stories formally through interviews, observations and artifacts, but also informally through shared meals, passing interactions, and inside jokes. I did so to acknowledge the complexity of the roles of triad members (Burns et al., 2016). These stories were contributed by my collaborators and myself and were borne of our own experiences. Their value in uncovering what it meant to be a mentor or a novice in fieldwork collaboration is immeasurable.

Carter expressed this sentiment by noting that "the analysis of story is of central importance to our field as a framework for reorienting our conventional analytical practices and for attacking many of the basic issues of interpretation, meaning, and power we face" (1993, p. 11). Further, story is essential to understanding the day-to-day lives of teachers and teachers in training. As Selland notes,

> The stories we tell, and the forms our stories take, matter for the way we see,
> evaluate, and interact with the world; and this is especially important in teaching. .
> . Thus, storytelling should be of interest to all teacher educators seeking to
> develop robust pre-service teacher experiences (2016, p. 5).

But the telling of stories is not a simple task. In our attempt to tell about the lives of others, we must accept and embrace that complexity. Bochner (2001) says it this way:

Life both anticipates telling and draws meaning from it. Narrative is both about

living and part of it. . . It is within the frame of a story that facts gain their

importance. Life stories may be based on facts, but they are not determined by

them. The facts achieve significance and intelligibility by being articulated within

a temporal frame that considers what came before and what comes after. . . The

call of stories thus inspires us to find language that is adequate to the darkness and

obscurity of experience. We narrate to make sense of ourselves and our

experiences over the course of time. (2001, pp. 154–155).

Bochner's words remind me that the complexity of story is immeasurable and that my ability to

tell someone else's story is tenuous at best. And yet, I attempted to do so because stories are

how we live our lives, how we tell about our lives, and how we learn about our lives. Fieldwork,

with its long-term effects on the lives of the novices and mentors involved, is a piece of life that

requires illumination. As Danny said of his role in taking on an intern, I repeat in my role of

telling these stories: "I worry . . . but how else? How else?!"

It is for this reason I chose to use storytelling as a method for understanding mathematics

teacher preparation fieldwork experiences. As we work to better understand the experiences of

novices and mentors in the field, more stories are needed to form a more complete picture of

fieldwork collaborations.

It is important, too, to gather these stories and tell them with a great deal of care for the

people who have contributed them to research. Though some would define story in neurological

and technical terms (e.g., Haven, 2007), I approached story as something that tells more about

the people we are studying (Carter, 1993; Fairbanks, 1996; van Manen, 1990). A story gives

those pieces of the whole. It is not, in itself, the whole. Nothing could do that, short of living the

experience ourselves. Instead, these stories—the stories I gathered from participants, the stories I shared with them, the stories found in observations and in artifacts, and the stories I wrote—are collections of personality, experience, expectation, and convergence that illuminate what it means to do field work. As such, it was my task to tell stories that would help the reader better understand my collaborators' and my experiences.

As the investigator in this study, the stories were entrusted to me by the storytellers, but they were not my stories alone. During both data collection and analysis, I struggled to handle them with care and respect the experiences they represented. In writing the fictionalized narratives, I did my best to maintain the rhythm and tone of my collaborators. I also made use of member checks to continuously solicit input about these stories and confirm the consent to tell them (Clandinin, Murphy, Huber, & Orr, 2009). Indeed, in more than one case, I altered or deleted a story at the behest of a participant. It is essential that researchers remember that the stories are not the property of the one who collects them. Instead, if stories are to tell us about fieldwork collaborations—and I believe strongly that they can—researchers must strive to collect and tell stories that represent participants authentically and are respectful to their wishes.

In order to do so, researchers must remember that if they want to represent participants' lives, they cannot hope to maintain an objective distance. Real connections must be formed between researcher and participant (Kvale & Brinkmann, 2009; Seidman, 2006). Researchers must also continuously gain agreement from participants. At the beginning of the study, at every interview point throughout the study, and as stories are being analyzed and written, participants must have the power to edit, delete, or add to their stories.

Story analysis: Listening and listening. Qualitative studies of fieldwork collaborations have relied predominantly upon observational and interview data, but few of these studies have

detailed the process by which data were analyzed. In some cases, audio and video data have

been transcribed and coded by multiple coders either deductively or inductively. In the analysis

of these stories, I chose not to transcribe my data. Instead, I repeatedly engaged with the data in

its original form, using memos rather than set codes to identify themes. In doing so, I was able

to preserve the emotions, timing, and inflection of the speakers—aspects of storytelling that can

change the meaning of the story.

For example, in speaking about her first day in Susan's classroom, Fiona told a story

about her experience presenting a PowerPoint that had been written by Susan. As a transcript,

that story looks something like this:

> [Sigh] So I'm up there and I hit the Next button. I'm reading off the PowerPoint
>
> slides. "I am, like, we are your teachers." [pause] Well, it said I am your teacher,
>
> so I changed it to "we are your teachers." "We are here to guide you and mentor
>
> you and help you and teach you." [pause] Next slide, all caps, bolded, underlined,
>
> "**<u>BUT WE ARE NOT YOUR FRIENDS</u>**." [pause] So day one, I pretty much
>
> shit my pants.

In that passage, Fiona's emotions are represented by parenthetical pauses, which do not fully

capture her experience on that day. What is missing from the transcript is Fiona's humor. The

entire story was told with a kind of sardonic lilt that conveyed her ability to look back and see

that defining moment as a learning opportunity. She was not angry or sad or worried. Listening

to this clip, I was able to recall the humor in her face as she told this story with her whole body,

gesturing and rolling her eyes. I felt incapable of getting this same impression from a transcript.

Rather than reading through a transcript of our two-hour interview, it became very important that

I listen to Fiona's inflections and pauses.

Fiona's story is just one of many stories that were richer in their original form. When analyzing the stories of educators in the field, then, I recommend that researchers not stray too far from their video and audio files. Indeed, I further recommend that as a field, we find ways to share audio and video data with one another. In the same way that the TIMMSS Video website (Carnegie Foundation for the Advancement of Teaching & University of California at Los Angeles, 1999) is used in mathematics teacher education classrooms across the world, the video and audio data we collect have the potential to be powerful tools for better understanding the experiences of teacher educators as they collaborate in the field. If participants are willing, part or all of these data could be directly transferrable to teacher education classrooms and/or training for mentors.

Practitioner research. A predominant trend in literature is for the researcher to approach fieldwork collaboration as an outsider to the collaboration. In general, researchers have approached their work from outside the triad, most often from a position of power. University faculty and other researchers have asked to interview, shadow, or observe triad members as they have gone about their day-to-day work in programs managed by the researcher. In other cases, these participants were simply asked to complete a survey written by a researcher disconnected from the teacher preparation program. In the study I have presented, however, I have approached my investigation as an insider—the university mentor working in the collaborations. This practitioner researcher role changed the kind of data I was able to collect in several ways.

First, I was able to establish meaningful relationships with the other participants in this study because I was studying our *collective* experience. Rather than acting as an "objective" researcher who wanted to collect stories from novices and school mentors, I engaged with my collaborators as a co-participant. As we shared stories with each other, I made myself

vulnerable. I shared my research and reasoning with them to explain why I made some of the decisions that I made both as the university supervisor and as the researcher. I told stories about my failures and my fears from years past. I admitted fault in some of the decisions I had made during our collaborations and spoke about my hopes for the novices and the school mentors. I teased and accepted teasing from others. And, although I intentionally shared stories with them during formal interviews, many of our exchanges occurred as side conversations or passing jokes. These ongoing exchanges became a part of our day-to-day interactions—interactions I could not have accessed as an outsider to the collaboration.

Second, I was able to collect data over an extended period of time. Abell and her colleagues (1995) encouraged educational researchers to engage in longitudinal studies of fieldwork experiences. Because I was the university mentor for each of the cases I studied, I had access to my collaborators for more than an entire school year. In fact, as I analyzed data and wrote up the findings during the summer and fall after our collaborations had ended, I was able to maintain contact with the collaborators for further input and checks for accuracy. The personal relationships I built with each collaborator would have been much more difficult to maintain if I had not been involved in the fieldwork myself. For example, simply scheduling observations and conferences as a member of the collaboration was often a complicated task that required a willingness to be flexible to the needs of each collaborator. If it had been necessary to schedule interviews and coordinate video/audio taping of conferences as an outsider, I would not have been able to access that kind of flexibility.

Third, I was able to collect in-depth data about the experiences of *all* collaborators. In studies that were limited to the experiences of one member of the triad or even a dyad within the triad, researchers have recognized the need to include the experiences of all collaborators (e.g.,

Rhoads et al., 2013; Valencia et al., 2009). By participating as a member of the triad and establishing meaningful relationships with each participant, I was able to better access and understand both the experiences of each collaborator and the dynamics of each triad.

Lastly, developing meaningful relationships with each participant made me a more empathetic researcher. As a qualitative researcher, I understand that I cannot (and should not) approach the stories of others from a cold, objective distance, attempting to tell absolute truths about others' experiences. Fine (1994) described this dilemma as "creating flat caricatures" and urged researchers to "'come clean' about the contradictory stances, politics, perspectives, and histories we import to our work" (1994, p. 79). Clandinin and her colleagues also addressed the benefits of an empathetic approach.

> As former teachers and as narrative inquirers, we came to understand teachers'
>
> dilemmas as we attended closely to the tensions teachers spoke of, and which we
>
> became aware of in our bodies, as we taught in our own classrooms and later lived
>
> alongside teachers in research classrooms (Clandinin et al., 2009, p. 82).

By recognizing my own subjectivities, connecting with the source of those subjectivities, and developing a sense of care for my co-participants, I could tell stories that were sensitive to the lives they represent.

By engaging as a participant researcher, I had access to and a vested interest in the lives of my collaborators. Action research, self-study, and practitioner inquiry are commonly promoted as tools for classroom teachers (Cochran-Smith & Boston College Evidence Team, 2009; Franke et al., 2007) and are promoted by groups like the National Association for Professional Development Schools through annual conferences (NAPDS, 2016). Unfortunately, this kind of research is still not easily found in literature about teacher education fieldwork. This

study provides insights into the potential practitioner inquiry has for benefitting research into fieldwork collaborations. In the field of teacher preparation, we must encourage more mentors (both from the school and from the university) and novices to engage in practitioner research that can add to the research on fieldwork collaborations. Support programs for school and university mentors should include assistance in planning, executing, and publishing practitioner research. Novices should be challenged in their teacher education programs to share their experiences with not just their cohorts, but with other educators across the country by going to conferences or authoring or contributing papers.

Continuing the conversation to inform decisions about teacher preparation fieldwork. This study is one piece of a much larger conversation about fieldwork collaborations. In order to continue that conversation, researchers must continue to delve into the experiences of educators in the field. Continuing to conduct isolated research studies, however, is not enough. In order for a larger picture to be formed, these studies must somehow engage with one another. Josselson noted,

> As scholars, we are separated from one another by time and location. But let us imagine someone reading all of these dissertations and trying to say something integrative about the issue . . . How would they begin? And on what would they focus? (2006, p. 8).

To remedy this dilemma, Josselson recommended that researchers engage in deep and meaningful study of related research to make connections among the stories we tell.

In this study, I have used the literature to construct an approach to fieldwork collaborations that attended to the many dilemmas identified by teacher education researchers and heeded their recommendations. I have also used the methodologies outlined in existing

literature to construct a research approach that would capture the aspects of fieldwork collaborations that have gone unexamined in previous investigations. Further, in the discussions of findings and implications, I have connected the stories in this study to others' experiences to place this work in the larger context of teacher education fieldwork collaborations. As we continue to add to fieldwork collaboration research, we must be mindful of our places in the larger story and intentionally work to help our readers make connections among the rich stories we tell.

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Appendix A: Individual Interview Protocols

Individual Synchronous Interviews

Co-participants will be interviewed individually either in person or via video conference. The following protocol will be used to facilitate talking points for a semi-structured interview. The goal of the interviewer will be to gather data from each of the main topics by using some of the questions listed under each one. Interviews will likely last anywhere from 30 to 90 minutes.

    Beginning of the Semester

- Tell me about your earliest experiences with mathematics.
    - Tell me about a time you felt especially successful or knowledgeable.
    - Tell me about a time you felt especially unsuccessful or frustrated.
- Tell me about why/how you decided you wanted to teach mathematics.
    - What is your favorite thing about teaching mathematics?
    - What is your least favorite thing about teaching mathematics?
- Think about how students learn.
    - How do you think students learn mathematics?
    - What convinces you that a student really understands something?
    - What convinces you that *you* really understand something?
- Think about the coming semester.
    - What do you expect to learn this semester?
    - What do you expect to teach this semester?
    - What is the most important thing about this final fieldwork experience?
    - What is your biggest fear about this final fieldwork experience?

    End of the Semester

- Think about how students learn.

- How do you think students learn mathematics?

- What convinces you that a student really understands something?

- What convinces you that *you* really understand something?

- Think about the past semester.

  - What did you learn this semester?

  - What did teach this semester?

  - What was the most impactful thing about this final fieldwork experience?

  - What was your biggest frustration about this final fieldwork experience?

- Think about the stories we have shared.

  - Did sharing stories with other members of our collaboration change the experience for you? If so, how?

Individual Asynchronous Interviews

- Asynchronous protocols will be brief missives that request the co-participants reflect on a specific aspect of the fieldwork experiences. Topics for these interviews will be selected from the group interview and observational data. Co-participants will also be encouraged to provide reflections on their experiences beyond formal requests. The strength of these asynchronous responses will be the ability to capture co-participants' own words and to allow co-participants to offer information organically as it occurs to them.

- Any limitations or discomfort with language may reveal a potential drawback—in those cases I will rely more heavily upon mid-term synchronous interviews. These mid-term interviews would be brief conversations that are more casual in tone and make use of the same protocol development described in the previous paragraph.

Appendix B: Group Interview Protocol

Group interviews will take place either in person or via video conference. Interview protocols will be greatly influenced by individual interviews and group observations, but will begin by gathering a general understanding of the collaborative relationship, as outlined below. The goal of the interviewer will be to provide the co-participants with the protocol at least 48 hours in advance so that they might add to the questions if they desire. During the group interview, the interviewer/participant and other co-participants will share in discussing the interview questions. Interviews will likely last anywhere from 30 to 90 minutes.

- What is your goal in this collaboration?
    - Have you discussed this goal before this interview? Why/why not?
    - Do you think it is important to know one another's goals and expectations? Why/why not?
- What do you think is the most important outcome of this semester?
    - What tasks are most important?
    - What artifacts are most important?
- What roadblocks (if any) do you anticipate (have experienced) this semester?
    - Why do you think they occurred? (Why do you think they will occur?)
    - How have you handled them? (How do you anticipate handling them?)

RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 ● Tampa, FL 33612-4799
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11/17/2015

Melody Elrod
Teaching and Learning
4202 E. Fowler Avenue Tampa,
FL 33620

RE: **Expedited Approval for Initial Review**

IRB#: Pro00023615

Title: Studying the Final Fieldwork Experience: Our Unique and Collective Stories in Preparing
         a Teacher of Mathematics

Study Approval Period: 11/17/2015 to 11/17/2016

Dear Ms. Elrod:

On 11/17/2015, the Institutional Review Board (IRB) reviewed and **APPROVED** the above
application and all documents contained within, including those outlined below.

Approved Item(s):
Protocol Document(s):
Triad - USF IRB Protocol

Consent/Assent Document(s)*:
Triad - Informed Consent.docx.pdf
*Please use only the official IRB stamped informed consent/assent document(s) found under the
"Attachments" tab. Please note, these consent/assent document(s) are only valid during the
approval period indicated at the top of the form(s).

It was the determination of the IRB that your study qualified for expedited review which includes
activities that (1) present no more than minimal risk to human subjects, and (2) involve only
procedures listed in one or more of the categories outlined below. The IRB may review research

through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review category:

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval via an amendment. Additionally, all unanticipated problems must be reported to the USF IRB within five (5) calendar days.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

John Schinka, Ph.D., Chairperson
USF Institutional Review Board

Appendix D: Participant Consent Form

Informed Consent to Participate in Research Involving Minimal Risk

Pro # 23615

You are being asked to take part in a research study. Research studies include only people who choose to take part. This document is called an informed consent form. Please read this information carefully and take your time making your decision. Ask the researcher or study staff to discuss this consent form with you, please ask him/her to explain any words or information you do not clearly understand. The nature of the study, risks, inconveniences, discomforts, and other important information about the study are listed below.

We are asking you to take part in a research study called:

Studying the Final Fieldwork Experience: Our Unique and Collective Stories in Preparing a Teacher of Mathematics

The person who is in charge of this research study is Melody Elrod**.** This person is called the Principal Investigator. She is being guided in this research by Gladis Kersaint, the Associate Dean of Academic Affairs and Research for the College of Education, who serves as faculty advisor and dissertation committee chair.

The research will be conducted at the University of South Florida as well as the school where the fieldwork is taking place.

Purpose of the study

This study is meant to investigate the experiences, needs, and expectations of the three educators involved in the final fieldwork of a mathematics teacher candidate. By capturing the individual and collective stories of this final fieldwork experiences, the study has the potential of informing mathematics teacher educators as they consider design decisions for future teacher candidates.

Why are you being asked to take part?

We are asking you to take part in this research study because as an educator who is beginning the final fieldwork experience as either the intern, the collaborating teacher, or the university supervisor, you have a unique story to tell. Your story, and the story of your collective experience with your collaborators has the potential of illuminating this final fieldwork experiences for other mathematics teachers and teacher educators.

Study Procedures:

If you take part in this study, you will be asked to participate in the following research-related activities over the course of the fieldwork semester:

- Two in-depth individual interviews (approximately 60-90 minutes each), which will take place at the beginning and end of the study.
- Two group interviews (approximately 45-60 minutes) which will take place at the convenience of you and your collaborators.
- One or two observations of collaborative meetings, which are held as a normal part of the fieldwork experience.
- Several short email conversations throughout the semester to follow up on interview or observational events. These emails can be answered at your convenience.

All interviews with be recorded and transcribed to ensure accuracy. Once the study has ended, the original recordings will be destroyed.

Total Number of Participants

A total of five to ten individuals will take part in this study at USF. These participants (preservice teachers, collaborating teachers, and their university supervisor) will form two to four collaborative units in this fieldwork experience.

Alternatives / Voluntary Participation / Withdrawal

You do not have to participate in this research study.

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

Benefits

Though you will receive no tangible (monetary or grade) benefits for participating in this study, participation can potentially provide you with useful reflective tools that can enhance your fieldwork experiences.

Risks or Discomfort

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

Compensation

You will receive no payment or other compensation for taking part in this study.

Costs

It will not cost you anything to take part in the study.

Privacy and Confidentiality

We will keep your study records private and confidential. Certain people may need to see your study records. Anyone who looks at your records must keep them confidential. These individuals include:

- The research team, including the Principal Investigator, and faculty advisor.
- Certain government and university people who need to know more about the study, and individuals who provide oversight to ensure that we are doing the study in the right way.
- The USF Institutional Review Board (IRB) and related staff who have oversight responsibilities for this study, including staff in USF Research Integrity and Compliance.

We may publish what we learn from this study. If we do, we will not include your name. We will not publish anything that would let people know who you are.

You can get the answers to your questions, concerns, or complaints

If you have any questions, concerns or complaints about this study, or experience an unanticipated problem, call Melody Elrod at 678-699-2594.

If you have questions about your rights as a participant in this study, or have complaints, concerns or issues you want to discuss with someone outside the research, call the USF IRB at (813) 974-5638.

Consent to Take Part in this Research Study

I freely give my consent to take part in this study. I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

_____   _____
Signature of Person Taking Part in Study   Date

_____
Printed Name of Person Taking Part in Study

Statement of Person Obtaining Informed Consent

I have carefully explained to the person taking part in the study what he or she can expect from their participation. I confirm that this research subject speaks the language that was used to explain this research and is receiving an informed consent form in their primary language. This research subject has provided legally effective informed consent.

_____   _____

Signature of Person obtaining Informed Consent   Date

Printed Name of Person Obtaining Informed Consent