

**Mentoring-in-the-Moment:**  
**A Case Study of an Exemplary Mentor's Educative Mentoring**

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**Abstract**

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**Background/Context:**

Mentors play a central role in preparing new teachers. This is multifaceted and demanding work, for which they rarely receive training, instead often relying on their own intuition or past experiences to guide their practice. As a result, most mentoring assumes the format of observation followed by feedback, emphasizing classroom management and pacing, leaving inquiry into the complex thinking and decision-making that underlie teacher classroom actions underdeveloped. Research has identified certain mentoring practices which, with training, can move mentoring towards a more educative stance. However, this research has focused primarily on mentoring that occurs before or after classroom instruction, leaving the identification of promising educative mentoring routines for use during instructional time minimally explored.

**Purpose/Objective/Research Question/Focus of Study:**

This qualitative case study investigated how one mentor, over the course of seven months of mentoring as part of a university-based teacher education residency program, enacted educative mentoring during instructional time (in-the-moment educative mentoring), and asked the following questions:

- How did this mentor enact in-the-moment educative mentoring?
- What tensions emerged for the mentor and novice teacher in enacting educative mentoring?
- What tools did the mentor utilize, adapt, or generate for use during instructional time to mediate these tensions, and to what effect?

### **Participants and Settings:**

Participants included one mentor and a novice teacher from a university-based teacher education residency program. Settings included the clinical classroom in an urban elementary school in which they worked, and mentor professional development sessions provided by the residency program and attended by the mentor. Due to the Covid 19 pandemic, however, these settings were entirely virtual, with all activities and events taking place in an online format.

### **Research Design:**

Broadly situated within Cultural Historical Activity Theory, this qualitative single-case study drew upon the concept of educative mentoring and the concept of pedagogical tools for its design and analysis. Mentor and novice interviews, classroom observations, and observations of mentor professional development sessions provided data. Emergent themes were identified through an

iterative analysis process and included open and focused coding and analytic memo-writing, all within an interpretivist paradigm.

### **Findings/Results:**

Findings showed that the mentor adopted two in-the-moment mentoring tools to mediate two tensions endemic to mentoring but amplified by the switch to the online teaching and mentoring format required by the pandemic: one, the tension between the mentor's dual role as mentor and classroom teacher; and two, tensions around cultivation of the novice's teacher noticing skills during instruction. Challenges to full appropriation of the routines by mentor and novice were also identified, resulting in some variation in the educative purpose guiding use of the two tools.

### **Conclusions/Recommendations:**

This study begins to identify practical, powerful mentoring tools that leverage instructional time to support novice inquiry into student thinking and understanding, and provides insights into the kinds of training and support needed, for both mentor and novice, if the tools' full potential is to be realized. Additionally, this investigation contributes to the conceptualization of educative mentoring in-the-moment in two ways: first, by identifying noticing, reflection, and in-the-moment decision-making as three teaching skills that mentoring during instructional time helps to develop; and second, by identifying the key role interruptions play in making educative moments during instruction possible.

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## Chapter One: Introduction

Every year, mentors<sup>1</sup> across the United States play a central role in preparing new teachers to teach. This is complex and demanding work, with mentors expected to, among other things, model effective practice and relationship building with students, provide meaningful feedback, guide reflection, introduce novices<sup>2</sup> to the systems within which they work, and evaluate them. Given this central role in teacher preparation and the amount of time novices spend in their placements, it is not surprising that they often cite their mentors as the single most influential force in their preparation programs (Clarke et al., 2014; Hoffman et al., 2015). And yet, despite the centrality of the mentor role and its influence in preparing new teachers, mentors usually receive little, if any, training in how to do the work of mentoring (Giebelhaus & Bowman, 2002). Mentors are frequently left to their own devices to figure out how to support their novice teachers, often relying on their own intuition or their own past experiences as a novice to guide their mentor practice (Knowles & Cole, 1996). As a result, most mentoring assumes the format of observation followed by feedback, usually emphasizing lesson planning, classroom management, and pacing, leaving inquiry into the complex thinking and decision-making that underlie teacher actions in the classroom underdeveloped (Crasborn et al., 2011; Moore, 2003). Research into mentoring of novices has, however, identified a number of mentor practices which, when combined with professional development for mentors, can help move mentoring towards a more inquiry-focused, “educative” model (Feiman-Nemser, 2012).

Primarily exploring mentoring that occurs before or after classroom instruction, these studies

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<sup>1</sup> In this proposal, “mentor” refers both to school-based teachers who host teacher candidates in their classrooms and experienced teachers paired with beginning in-service teachers as part of an induction program. Cooperating teacher, host teacher or teacher educator associate are other commonly used terms.

<sup>2</sup> “Novice” refers to beginning teachers, both pre-service (often called student teachers and teacher candidates) and those in induction years.

have presented co-planning, observation, debriefing conferences, and analysis of student learning as practices fundamental to educative mentoring when they are enacted with a focus on “growth, continuity, and inquiry” (Stanulis et al., 2018, p. 12). These important mentoring interactions, however, usually occur at the end of a lesson or at the end of the school day, and thus do not take full advantage of where and when mentors and novices spend most of their time: in the classroom, in the midst of lessons.

A peek into a Coastal Teacher Residency<sup>3</sup> classroom, however, reveals a different mentoring practice at work:

*A few kindergartners sit on the floor in a cozy classroom corner, while others sit on benches or at small tables, concentrating on reading their little “just right” books.<sup>4</sup> The mentor teacher and her novice stand to one side of the room, surveying the children and discussing which child to check in on. Decision made, they approach a little girl and the mentor crouches down to speak with her while the novice leans in, listening. The mentor asks the child to read to her, occasionally prompting the student when she gets stuck, other times asking questions about the words or story. After about five minutes, the mentor gives the little girl instructions about what to continue with, and retreats to the side of the room with the novice. “What did you notice?” asks the mentor. The novice shares her thoughts, the mentor listens, nodding, but also adds some thoughts of her own, what she noticed about the student’s reading, and how that prompted her to ask the child certain questions. The mentor and novice then discuss which student to confer with next, and this time it is the novice who crouches down to talk to the student with the mentor listening. Occasionally, the novice pauses, asks the mentor a question, and then continues with the student. When done, the novice and mentor again retreat, huddling to share what they*

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<sup>3</sup> Pseudonyms are used throughout

<sup>4</sup> This vignette is based upon classroom observations from a pilot study for this investigation

*noticed about the student's learning and for the mentor to give the novice feedback on her interactions with the child. This routine of mentor-novice discussion "huddle" -- novice practice with conferral, followed by another mentor-novice "huddle,"-- continues for the rest of the kindergartners' reading time.*

The Coastal Teacher Residency Program (CTR), a teacher preparation program that involves a collaboration between a major urban school district, a local public university, the local teachers' union, and a community-based organization, provides its mentors with regular professional development in specific mentoring routines—like the one described above, which is referred to as “huddling”—that support mentors in moving well-beyond the more common “apprenticeship” models of working with novices, into an active, teacher-educator conception of mentoring. Building upon the idea of teacher routines as scaffolds to instructional practice that is responsive to student thinking and understanding, mentoring routines scaffold mentors in developing this kind of ambitious practice with their novices. Paired with regular instructional practices, such as conferring with students, mentoring routines have the potential to: one, help move the locus of mentor-student teacher coaching conversations to the moments within lessons when important instructional decision-making is happening, and two: help mentors make the thinking behind these “in-the-moment” decisions visible to the novice, thus affording these new teachers with opportunities to develop understanding around student thinking and the judgement necessary to be able to provide students with responsive, individualized instruction.

The possibility of these routines is significant, because while developing an educative stance in mentoring has been identified by researchers as central to improving the quality of novice learning in field placements, the actual activities or tools mentors could use to enact this type of mentoring have been minimally defined (Clark et al., 2014; Sheridan & Young, 2017;

Schwille, 2008; Feiman-Nemser, 2012). Because the majority of mentor and novice time is spent in the classroom instructing children, understanding how mentors leverage this time for novice learning and exploit unique “in-the-moment” learning opportunities to develop novice expertise deserves attention. This study is designed to address this research gap.

This qualitative case study examined the mentoring practice of one mentor, Jessie, as she worked with her novice, Mario, over the course of seven months. Their experiences within the Coastal Teacher Residency Program provide a unique case in which to begin closing this research gap due to the program’s emphasis on the role of mentoring in new teacher preparation, professional development of mentors, and positioning of mentors as teacher educators. Additionally, in recent years CTR has begun training its mentors in a series of mentoring routines that are intended to help mentors actively teach novices core teaching practices *during* instructional time. Together, these characteristics made CTR mentoring a rich milieu for learning more about in-the-moment educative mentoring.

This qualitative case study investigated how Jessie enacted in-the-moment educative mentoring over the course of seven months, and asked the following questions:

- How did this mentor enact in-the-moment educative mentoring?
- What tensions emerged for the mentor and novice teacher in enacting educative mentoring?
- What tools did the mentor utilize, adapt, or generate for use during instructional time to mediate these tensions, and to what effect?

Addressing these questions contributes to understandings of “in-the-moment” mentoring practices for moving mentors towards more educative stances in their practice.

### **A Note on Context**

It is important to note that due to the Covid 19 pandemic, this entire study took place while CTR, mentors, and associated schools shifted all activities to an online format. Mentors, novices, students, and CTR staff interacted only via their computers. Throughout this investigation, all classroom instruction took place remotely, with the mentor, novice teacher, and students interacting during instruction only through their computers, each from separate locations. Subsequently, all of my observations and interactions also occurred online from my own remote location. Nevertheless, this investigation remained focused on the above questions, centering on in-the-moment educative mentoring, not on remote mentoring as an alternative to more typical in-person mentoring. In this sense, the virtual environment played a contextual role throughout the study, not a starring role, a distinction further explained in my methods and findings chapters.

### **Dissertation Overview**

The next three chapters of this dissertation present an explanation of and justification for this case study, beginning with Chapter Two, where I situate it within the literature on mentoring of novice teachers and describe a shift that has occurred in how the field of education thinks about the role of mentors and mentoring of novice teachers. The review also touches upon literature that focuses on remote/online mentoring, because of the unprecedented Covid 19 context of this study. In Chapter Three I present the theoretical framework for the investigation, discussing theory and concepts that both contribute to my ongoing conceptualization of mentoring and helped guide my study design, data collection choices, and analysis. Chapter Four presents the study's methodological stance, the methods followed for data collection and analysis, and a more thorough description of the study's unusual and complex context. Biographies of the focal mentor and her novice follow in Chapter Five, providing deeper

understanding of the individuals whose actions and thoughts lie at the heart of this investigation. Next, Chapters Six, Seven, and Eight present my findings, and Chapter Nine concludes the dissertation with a discussion of the findings and their implications for the mentoring of new teachers.

## **Chapter Two: Review of the Literature**

Novice teachers have long cited their mentors as the single most influential force in their preparation programs (Clarke et al., 2014; Hoffman et al., 2015). This influential role of mentoring combined with well-documented aspects of how mentoring actually plays out in teacher education have been increasingly scrutinized by researchers over the past twenty years (e.g., Wang & Odell, 2002; Clark et al., 2014). This review of mentoring literature is divided into two parts. Part One explores several questions regarding mentoring that these researchers have raised. First, what is the role of mentors and mentoring and towards what end? Second, how have mentors typically enacted this role and what has been problematical about this enactment? Third, what effective mentoring practices have been identified by researchers that improve mentoring and what challenges face mentors in enacting those practices? Finally, I conclude Part One of the review by suggesting future avenues for research that could result in deepening our understandings of how mentors do their work and how the known mentoring repertoire could be broadened in the interest of enhancing novice teachers' experiences and learning. Part Two provides a brief overview of literature focused on remote mentoring/online mentoring and concludes by discussing the relevance of this study for that body of literature.

### **Part One: In-Person Mentoring**

#### ***Mentoring as Clinical Component***

While a supervised field experience has long been a staple of preparing new teachers, (Ogren, 2005; Zeichner, 1990; Cornbleth, 1994), its enactment has often been haphazard, disconnected from university course work, lacking in “clinical curriculum” (Turney et al., 1985 as cited in Zeichner, 2010, p. 91), and absent of well-trained clinical educators (Zeichner, 2010). Furthermore, over the years teacher education programs have been criticized for focusing too

much on knowledge acquisition and not enough on application of that knowledge in real life classrooms (Grossman et al., 2018). In response to these issues and as a result of changing thinking around teaching and learning, the past few decades have seen a concerted shift towards recentering a clinical component in the teaching of teachers (Feiman-Nemser, 2012). Instead of novice learning through knowledge transmission in university course work, teacher education researchers emphasize concurrent and complementary knowledge development in both coursework *and* practice. Cochrane-Smith & Lytle (1999) conceptualize this kind of teacher learning as knowledge *of* practice, knowledge that is “generated when teachers treat their own classrooms and schools as sites for intentional investigation at the same time that they treat the knowledge and theory produced by others as generative material for interrogation and interpretation” (p. 250). Teachers learn to teach well, they claim, “by working within the contexts of inquiry communities to theorize and construct their work and to connect it to larger social, cultural, and political issues” (Cochrane-Smith & Lytle, 1999, p. 250). Thus, “[e]fforts to improve teacher education have recently focused in on the importance of well-supervised clinical practice as a critical element of effective preparation” (Darling-Hammond, 2014, p. 547). These constructivist, situated learning conceptions of teacher knowledge development and the accompanying reorientation of teacher education towards clinical practice put a spotlight on the role of mentoring in developing teachers and imply expectations that these mentors function as part of an integrated teacher education effort.

These shifts in thinking around teacher knowledge development have also spurred interest in mentoring on the induction level. Since 1990 the number of state and district funded induction programs have dramatically grown and mentoring programs have become the dominant induction model (Ingersoll & Strand, 2011; Hobson, 2009). Increasingly, districts have

recognized teaching as complex work and have shown a growing “awareness of the importance of collaborative, co-constructivist approaches to mentoring to build teachers’ knowledge-of-practice” (Langdon & Ward, 2015, p. 240). Thus, similarly to preservice mentors, induction mentors find themselves in a more visible role in the development of novice teacher knowledge with implied expectations specific to current conceptions around teacher learning. In essence, mentors are increasingly being called upon to be *teacher educators*.

**Mentor as Teacher Educator.** Just what are the expectations for mentors as teacher educators? According to Wang and Odell (2002),

It is expected that mentors will help novices to learn guiding principles and reflect on the reasons and assumptions for teaching practices and the relationship between theory and practice; in addition, mentors are expected to treat novices as active learners by engaging them in discovering important knowledge for teaching. Finally, mentors are expected to help novices develop an intellectual foundation for teaching through continuous professional development (p. 491).

In order to fulfill these expectations, mentors must also be “knowledgeable about and conversant with the teacher education literature and current debates about knowledge generation in practicum settings” (Clarke et al., 167-168). More specifically, mentors are expected to “assist preservice teachers to develop situated understandings of theoretical ideas acquired in their program classes” (Orland-Barak & Wang, 2020, p. 2), and help novices apply pedagogical content knowledge and classroom management strategies to their practice (Orland-Barak & Wang, 2020). Furthermore, in order to address issues around discontinuity and dissonance between novices’ field experiences and their university course work, and to facilitate connections

between theory and practice, mentors are expected to participate more directly in a collaborative community with university teacher educators (Roland & Beckford, 2010).

In many ways, this conceptualization of mentor as teacher educator seems a tremendous gain for the field of teacher education. Novices would have rich clinical experiences connecting theory and practice, and the work that mentors have done for years (often with little recognition and absent any real partnership with the university for whom they mentor), would be acknowledged and valued. However, it is hard not to gasp at the complexity and extent of the mentoring expectations as described above. This kind of mentoring must be learned, and research has shown that being a good teacher does not automatically translate into being a good mentor (Schwille, 2008; Gardiner, 2017). Additionally, the collaborative, co-constructivist mentoring approach is a far cry from what continues to be the more typical mentoring experienced by novices.

### ***Issues in Mentoring Enactment***

Over the years, most mentoring documented by researchers has not been consistent with a collaborative, co-constructivist approach to learning how to teach. Instead, the “master-apprentice” model has been dominant, in which knowledge transmission is the norm with a focus on technical dimensions of teaching, rather than inquiry into instructional choices (Franke & Dahlgren, 1996; Clarke et al., 2014; Orland-Barak & Klein, 2005). Graham (2006) describes mentors acting as “maestros,” teacher “experts” characterized by mentor modeling with content and feedback “delivery” (as cited in Clarke et al., 2014). In her 2003 study, Moore found that the 62 mentors in her study, almost without exception, perceived “procedural concerns of time management, lesson planning, and classroom management...as most important to teaching success” (p. 31). Soslau et al. (2018) report that the majority of hundreds of impromptu

conversations held between mentors and novices over the course of 15- to 24-week student teaching placements centered on classroom management and procedural issues, with the mentor providing solutions, rather than engaging in collaborative inquiry. At the same time, other research has documented mentors shying away from delivering instructional advice, suggestions, or feedback, instead emphasizing a therapeutic approach in their work, seeing their primary job as emotional supporter of the novice and cheerleader (Koballa et al., 2008; Clarke, et al., 2014; Wang & Odell, 2002).

Thus, typical mentoring practices present a challenge to enactment of the collaborative, co-constructivist model consistent with current conceptualizations around teaching and learning. Rather than outright dismissal of these mentoring approaches, however, some researchers encourage inquiry into their meaning and usefulness for mentors and caution against simplistic mentoring conceptualizations that obscure the range of activities in which mentors participate. For example, in their review of multiple studies of mentoring of preservice teachers, Clark et al. (2014) identify eleven “categories of participation” to describe typical mentoring enactment: Providers of Feedback, Gatekeepers of the Profession, Modelers of Practice, Supporters of Reflection, Gleaners of Knowledge, Purveyors of Context, Conveners of Relation, Agents of Socialization, Advocates of the Practical, Abiders of Change, and Teachers of Children. These categories illuminate the wide range of roles that classroom-based mentors inhabit as part of practice, with the reminder that they simultaneously fulfill their duties as a teacher of children. While some of these modes of participation might seem too out-of-step with current visions of good mentoring (too rooted in evaluative and “maestro” stances), in the real world of classroom teaching and learning each of these modes of mentor participation often provide value (Clarke et al., 2014). Furthermore, the *nature* of participation is of particular importance; how openly

mentors invite novices in to *engage* within these modes determines whether the mentor/novice experience is more master/apprentice or collaborative and co-constructive (Clarke et al., 2014). Additionally, the authors note that one or more of these modes of participation can be in tension with another, and recognizing these tensions can point to what kind of support the mentor/novice could benefit from. Examination of these tensions, determining whether they are generative or not, and whether some modes of participation are overly enacted while others are insufficiently enacted, could inform a program of how best to support mentors' needs and develop their practices to deliver teacher education consistent with today's vision of quality teacher preparation.

Other researchers have also addressed points of tension in a turn towards a teacher educator model. Valencia et al. (2009) caution against relying upon the mentors to be the "bridge to course-work" as a solution for the disconnect between university and field placement learning (p. 320) While the authors were struck by a lack of "nurturing experimentation and inquiry-oriented practice," an absence of a "community of reflective practitioners and learners," and a dearth of opportunities for the ELA candidates studied to engage deeply "in the complex issues of teaching reading, literature, and writing," they recognize the juggling act performed by mentors in fulfilling their classroom, school, and mentoring responsibilities and the tensions they experience as a result (pp. 318-319). Thus despite any misgivings about an enactment of mentoring and desire for the mentors to enter more fully the role of teacher educator, care must be taken in order to avoid over-burdening mentors who also, needless to say, have never been well-compensated for their work (Zeichner, 2010). Further definition of a workable construct of teacher educator for mentors participating in collaborative communities of practice is needed.

While Clarke et al. address tensions that arise between competing roles that mentors inhabit, and Valencia et al. address tensions originating across a program, Hawkey (1998) explores tensions that surface as a result of the fact that many teacher education programs do not have the luxury of selecting the particular mentors who work with their novices. As a result, mentor and novice can be “mismatched,” as well as the mentor’s and university’s ideas around mentoring. In Hawkey’s study of a “maestro” mentor and his novice, these tensions ultimately served as a catalyst for the novice to dive deeply into questions around pedagogy, student outcomes, and her general teaching values. Additionally, while the mentor did not wholly conform to the university program’s reflective, constructive learning paradigm, his other strengths (consider the list from Clarke et al.) seemed to compensate. Hawkey’s findings echo those of Clarke et al.’s and Valencia et al.’s: conceptualization of mentors as teacher educators must reflect the reality of mentoring situations, and in this case, allow for some idiosyncrasy in mentor enactment, particularly in relation to honoring individual mentor authenticity.

The trick, then, is to help mentors make a move into today’s practice-based teaching and learning paradigm, with its emphasis on collaboration, inquiry, and co-constructivist knowledge creation while recognizing the multifaceted reality of mentoring work as it unfolds in a real classroom, and the multiple roles that a mentor inhabits as a result of classroom complexity (Timperley, 2001). Development of mentor practice must be “sensitive to its ‘messy’ character; shredded with contradictions, tensions and unpredictability of the particular context” (Orland-Barak, 2014, p. 187).

### ***Mentoring Forms***

Researchers have taken up this challenge to further identify what constitutes a mentor practice that engages novices in collaborative, co-constructivist learning, that nurtures

knowledge-*of*-practice while attending to context. Taking a cue from Schwille (2008), I've divided findings from this research according to those which explore mentoring "outside the action," and those that explore it "inside the action." "Outside the action" refers to mentoring forms that occur when students are not present, and "inside the action" to those that occur when students are present, when instruction is actively taking place.

**Outside the Action.** In analyzing the data from a cross-national study of mentoring of novices, both preservice and beginning teachers, Schwille (2008) identified seven "outside the action" forms that mentors enacted to create learning opportunities for their novices: Demonstration; Brief, informal conversations; Mentoring sessions; Debriefing sessions; Co-planning sessions; Videotape analysis; and Writing. All of these forms, Schwille contends, when enacted intentionally, provided opportunities for inquiry, modeling, direct instruction, connecting classroom experiences with broader educational themes and principles and teaching theory. Additionally, these forms enabled mentors to nurture the development of novices' reflective, professional teaching stance when enacted with the purposeful goal of doing so. Though many of these forms are consistent with those found in more conventional mentoring settings, Schwille found that it is their enactment that differentiates them, echoing Clarke et al.'s findings regarding the significance of the nature of mentoring enactment.

Other studies also found pre- and post- instruction conversations, video-analysis, action research, and writing supported collaborative, co-constructive novice learning, especially in helping novices develop a reflective stance (Weiss & Weiss, 2001). Providing mentors with training especially seems to enable mentor-guided, intentional conversations that promote reflection and inquiry into instruction (Timperley, 2001; Crasborn et al., 2008; Stanulis et al., 2018). The specific content of conversations that contribute to novice learning has also been

explored: Hudson (2013) specifies talk concerning planning, timetabling, and content knowledge, with suggestions for how to scaffold questions to promote novice growth. Land (2018) and Achinstein and Athanases (2005) highlight mentors' engagement with novices in critical discourse as a means towards novices confronting existing societal power structures and their influence on teaching and learning as well as towards prompting personal reflections on novices' own identities and power. In a study on mentors and novices in an induction program, Athanases et. al (2008) found that mentor scripts which provided vocabulary and structure for reflective conversations helped the novices' growth in serving diverse communities.

Still other studies stress the importance of mentoring conversations in mediating a productive and collaborative mentor/novice working relationship (Sheridan & Young, 2016; Stanulis & Russell 2000; Bradbury & Koballa, 2008; Clarke et al., 2014). Stanulis et al. (2018) emphasize guided debriefing conversations centered around evidence of student learning. In her study on mentoring in an induction program in Austria, Da Rocha (2014) found that developing mentors' verbal communication skills greatly enhanced the construction of communities of learning. Awaya et al. (2001), reminiscent of Hawkey's observations that mentors and novices are not always perfectly "matched," discuss how mentor-novice dialogue contributes to building a trusting relationship between mentor and novice.

Additionally, these trusting relationships have been found to be a product of co-planning (Wexler, 2019). Similar to Schwille's findings, co-planning has been identified in other studies as a fruitful space for conversations that guide inquiry into student learning and prior knowledge, pedagogical thinking around lesson objectives, assessments and activity sequencing, and promote pedagogical content knowledge acquisition (Stanulis, et al., 2018; Hudson, 2013; Barnett & Friedrichsen, 2015; Thompson & Schademan, 2019; Pylman, 2016).

**Inside the Action.** How mentors do the work of mentoring “inside the action” has been less explored. Schwille (2008) identifies four mentoring forms that occur during student instruction: coaching; stepping in; teaching together; and planned mentor teaching demonstration/modeling. Schwille contends that these “inside the action” forms enable mentors to engage in mentoring that sharply diverges from the conventional mentoring practices described earlier. Within this mentoring construct, mentor and novice work side by side during instructional time, with the mentor intentionally guiding the novice to learn the tasks of teaching. Through enacting these forms the mentor engages the novice in “reflection-in-action” (Schon, 1991), shares decision-making thinking in-the-moment, provides in-the-moment assistance as the novice tries out instruction, and prompts the novice to notice and interpret student thinking in order to modify instruction as needed.

Whereas Schwille does not specify “observation” as a mentoring form (though coaching of novices during instruction involves observing them), Stanulis et al. (2018) do. Observations of novice teaching that promote novice growth, they state, are key parts to mentor practice when they focus on issues of instructional significance and are paired with guided debriefs which include references to evidence gathered during the observation. Two studies of mentoring in induction programs found that these types of observations with evidence-based debriefs helped clarify instructional practice and situate it in the particular teaching context (Stanulis & Ames, 2009; Gardiner, 2017). Furthermore, subsequent similar observations and debriefs supported the novices in following through with feedback.

While Schwille noted the function of brief, impromptu conversations as an outside the action mentoring form, Soslau et al. (2018) investigated how such conversations held during instruction support novice learning. While they found that these kinds of conversations supported

novices' adaptive help seeking, they also found that inquiry-related probing and prompting did not characterize the exchanges; instead, mentor comments were directive and mostly focused on classroom management. In their study of co-teaching as a model for mentoring of preservice teachers, Thompson & Schademan (2019) also noted the benefits of these "impromptu conversations" which they named "coaching in the moment" (p. 5). These sorts of conversations, they state, provided novices with "daily, non-evaluative corrections to their practice" and "sent a message to students that positive, constructive feedback and critical reflection were norms in the classroom" (Thompson & Schademan, 2019, p. 6).

**Challenges to Enactment of Mentoring Forms.** As noted previously, simply enacting the identified mentoring forms does not guarantee inquiry into teaching and learning and engagement of the novice in co-construction of knowledge situated in context and focused on student thinking and understanding. Mentors themselves must develop a reflective stance and knowledge about the potential of these forms so that enactment does not simply conform to a more conventional mode of mentoring. And, because mentors do inhabit a number of roles, including general and technical advisor, teacher of record, and emotional supporter, they need to see these forms as a versatile repertoire to draw upon (Crasborn, 2008). All of these forms, inside and outside the action, can be considered as complementary, and their successful enactment involves fluid implementation, with the mentor deciding which form to utilize when, depending upon the needs of the novice and the particular situation that arises (Gardiner, 2017; Schwille, 2008; Thompson & Schademan, 2019). This calls attention to research suggesting that mentoring skills can be learned with associated professional development (Timperley, 2001; Feiman-Nemser, 2012; Schwille, 2008; Gardiner, 2017).

The literature on induction mentoring also shows a reluctance on the part of mentors to enact “inside the action” forms of mentoring as a challenge. Because induction mentors typically only occasionally visit novices’ classrooms, they can be reluctant to take a more active coaching role, model or share their thinking during instruction, or use quick conversations to help support the novice (Schwille, 2008; Gardiner, 2017). Induction mentors have been shown to be sensitive to the fact that the novices in this case are the teachers of record in their classrooms, and mentors both wish to be respectful of that fact and can be concerned about undermining the authority of the novice (Gardiner, 2017). This reluctance and sensitivity seem to result in any coaching during instruction that does occur being limited to quick pointers about classroom management or minor instructional adjustments (Gardiner, 2017). This is consistent with Feiman-Nemser’s (2012) observation that induction mentors “lean towards ‘fixing’ novices’ problems rather than treating them as occasions for joint problem solving or shared inquiry” (p. 125). Interestingly, it is possible that mentors perceive tension between a collaborative approach to mentoring and robust coaching and therefore shy away from what can be considered more intrusive practices (Gardiner, 2017). In her study of mentoring in induction, Gardiner (2017) also reports that novice attitudes might have pushed away mentor attempts to guide them during instructional time, attitudes possibly related to enculturated norms of teacher autonomy and individuality.

### ***Discussion***

The turn towards practice-based education calls for mentors to play a larger and more pivotal role in the development of new teachers. In order to provide novices with rich opportunities to inquire into and reflect upon pedagogy, subject matter content, student thinking and understanding, and context, mentors need to abandon a conventional “master-apprentice” approach to mentoring and move towards a more collaborative, co-constructivist model.

Significant research has been conducted which has identified a number of mentoring practices that, when combined with professional development for mentors, provide novices with just such an array of learning opportunities. However, there are a number of questions around mentoring practices that deserve further investigation.

“Inside the action” mentoring forms have been minimally identified and investigated. While Schwille (2008) identifies four forms (coaching; stepping in; teaching together; and planned mentor teaching demonstration/modeling), what others might exist? What else do mentors do *during* instructional time to grow their novices’ practice? Afterall, the majority of mentor and novice time is spent in the classroom instructing children, and leveraging this time by creating robust learning opportunities within it seems desirable. Investigating how mentors who are known to be particularly effective mentors in-the-moment could help identify additional mentor forms, adding to mentors’ repertoires and enlarging their choice of type of intervention in a variety of situations.

Additionally, further exploration of what tensions are provoked when mentors try to enact “inside the action” mentoring modes could be instructive. For example, Gardiner’s (2017) study of induction mentors suggests that both mentor and novice conventional perceptions of acceptable mentoring clashed with a more pro-active model, resulting in little in-the-moment mentoring. What other tensions could be identified in order to better support mentor take-up of promising practices? Clarke et al. (2014) found that “teacher of children” was the role that mentors most predominantly identified with—what tensions between that role and the mentoring role might be exacerbated by attempts to mentor in-the-moment? Valencia et al. (2009) remind us that mentors juggle a vast array of responsibilities—how do mentors mediate some of these as-yet unidentified tensions, and deliver “inside-the-action” mentoring? Or, perhaps through

mediating some of the unavoidable tensions that arise in doing their daily juggling, mentors discover effective in-the-moment mentoring forms? And of course, it mustn't be forgotten that the main goal of mentoring is to develop novice teachers' practice, so how do novices experience "inside the action" mentoring? And in honoring the collaborative approach to mentoring, what might novices contribute to the development of mentoring strategies? Answers to these questions could further develop possible "inside the action" mentoring strategies and provide better programmatic support for mentoring work.

While several studies pay particularly close attention to the context in which the mentor and novice work, they predominantly focus on how the content of mentor/novice discourse can be used to prepare novices for work in diverse communities (Land, 2018; Achinstein & Athanases, 2005), but with the exception of the studies on induction mentoring (Gardiner, 2017; Schwille, 2008; da Rocha, 2014) few studies explore the interaction between context and mentoring practices enacted. How mentors' mediation of their contexts might both give rise to particular mentoring practices and constrain the use of others could be informative in trying to develop mentoring repertoires that are useful across multiple contexts.

Finally, as my struggle with vocabulary throughout this paper will attest to, mentoring is in dire need of a common language of practice. Researchers referred to throughout this paper use a wide range of words to describe mentoring and its constituent parts. For example, there is mentoring "practice" (mentoring broadly speaking) (e.g., Darling-Hammond et. al, 2005; Schwille, 2008); then there are mentoring "practices" (the various things mentors do within their general "practice") (e.g., Darling-Hammond et al., 2005; Achinstein, 2012); and then there are tools, forms, modes, strategies, and moves, also referring to things mentors do within their "practice" (e.g., Schwille, 2008; Bradbury, 2010; Stanulis et al., 2018; Athanases et al., 2008;

Thompson & Schademan, 2019). Sometimes the researchers even use the terms interchangeably in the same paper. Rather than giving the writing a lively variety, I believe this unreliable nomenclature confuses and obfuscates when the point of this research is to suss out complexities, make them visible, and encourage clear conversation around them so that people can make sense of them and so that desired changes in the world of education can happen. This inconsistent nomenclature also, perhaps, signals the unresolved nature of a mentoring conceptualization. If coherent professional development of mentors is to take place, a common language is needed so that rather than confusing mentors, they are empowered to deliver quality teacher education.

### **Part Two: Remote Mentoring**

As explained in the introduction of this paper, the goal of this case study was to gain better understanding of how mentors leverage instructional time for novice learning and exploit unique “in-the-moment” learning opportunities. Because of the Covid 19 pandemic, the context for this study switched from a physical classroom to a web-based platform where mentor, novice, and students were present virtually. Still, the study focus remained a case of mentoring that happened to *be* in a remote environment, rather than a study *of* remote mentoring. Nevertheless, here I present a brief review of literature on remote mentoring and identify in what ways this study could contribute to that body of knowledge.

Before beginning the review, the reader should note that the researchers cited here used various terminology to name virtual mentoring, including remote mentoring, e-mentoring, and online mentoring. Additionally, the review shows that across the literature, researchers use “mentoring” and “coaching” interchangeably, or at least with little explanation as to why one term is used over another. Sometimes “coaching” refers to activities of university-based

supervisors, and other times to school-based “mentors” of new teachers. In this review I have tried to use the language of the authors when describing their work.

### ***Asynchronous Remote Mentoring***

A number of studies describe virtual mentoring programs that exist in order to provide mentoring/coaching to first or second-year teachers who otherwise would not receive such support due to geographic isolation or availability of local, qualified or content-specific mentors. Much of this mentoring tends to be web-based, consisting of online platforms where novice and mentor interact through email, chats, and discussion posts. Studies of this kind of remote mentoring in both the United States and Brazil have focused on the topics and nature of mentor-novice discourse (Band & Luf, 2014; Clutterbuck, et al., 2017) and the value of helping novices build professional networks that extend past the school walls (McCann et al., 2012). Another study on web-based novice mentoring investigated whether an online platform could effectively facilitate “data-driven instructional coaching” by providing mentors with templates on “key coaching actions,” that focus on using student data to enhance novice instruction (Glover et al., 2019).

Similar to the studies above, programs using remote mentoring to support alternative route teacher candidates also cited geography and local mentor availability as reasons for providing virtual support. In this case, the novices receiving mentoring support were teachers of record in classrooms in more remote areas of the United States and Australia, attending education program courses in the evenings or on weekends (Hew & Knapszyk, 2007; Redmond, 2015). These studies, too, focused on web-based, asynchronous, written communication between mentors and novices that constituted the mentoring interactions. In their overview of remote, United States-located mentoring programs which had been reviewed through scholarly articles,

Clift et al. (2010) found that all nine consisted of asynchronous support, providing email, online discussion, and group.

Thus, whether induction-focused or alternative route-focused, most studies reported on remote mentoring as an asynchronous practice, mostly consisting of written communication, and with interactions between mentor and novice occurring outside of instructional time.

### ***Synchronous Remote Mentoring***

However, a few studies revealed some teacher education programs' attempts to incorporate synchronous remote mentoring to support their novices, namely through a technology called "bug-in-ear." In these studies, novices wore a Bluetooth ear bud connecting her to her coach through Skype. This way, the coach could both see and hear the novice and students and could deliver feedback, thoughts, or encouragement to the novice during instruction (Rock, 2011; Rock, 2013; Wake, 2017). Rock's studies (2011; 2013) found that bug-in-ear (BIE) coaching resulted in increased novice use of evidence-based classroom management strategies and novice enthusiasm for BIE coaching. Wake's study (2017) reported that novices valued bug-in-ear mentoring for its "comfort, convenience, and connectedness," principally based upon the lack of a physical presence of the coach: novices were less nervous and they felt students were more authentic during observations.

### ***Discussion***

A review of literature on remote mentoring revealed that most studies reported on asynchronous mentoring facilitated through email, chats, and discussion posts. The studies on synchronous remote mentoring relate more closely to my study because they focus on in-the-moment interactions between novice and mentor. However, no studies appear to exist in which everyone--mentor, novice, students, and researcher-- interact remotely. Neither do most studies,

unlike mine, focus on mentors of pre-service teachers where the mentor is the teacher of record. As a unique case, my study could contribute to literature on remote mentoring in general and more specifically on synchronous possibilities within remote mentoring.

### **Chapter Two Summary**

This chapter began with a review of literature on the role of mentoring in teacher education, the value of the clinical component of teacher training, a reconceptualization of the mentor as teacher educator, and common research-identified issues in mentoring enactment. Second, I described effective mentoring practices as identified by researchers and challenges that mentors face in enacting them. Then, I suggested future avenues for research that could result in expanding mentors' repertoires to enhance novice learning, particularly in mentoring novices during instruction, rather than relegating all active mentoring forms to before or after lessons. Finally, I presented a brief review of literature on remote mentoring, a review which shows that in this body of research educative mentoring-in-the-moment also has been minimally investigated, and underscores the unique nature of my study's virtual context. My next chapter presents the theories and concepts that guided my study design, data collection, and data analysis.

### **Chapter Three: Theoretical/Conceptual Framework**

Over the ten years I have worked as an instructional coach for preservice teachers affiliated with three different university teacher education programs in two different states, and throughout my experiences working with mentors and their novices in classrooms ranging from first grade to seventh grade Social Studies to AP Statistics, one aspect of my experiences stands out: the kind of mentoring I have observed classroom to classroom has consistently been characterized by a lack of consistency in conceptions around mentoring. I have worked with mentors who acted primarily as “placeholders” (Clarke et al., 2008), others within more of a “maestro/apprentice” paradigm (Hawkey, 1998; Clarke et al., 2008), still others primarily as “personal supporter” (Hawkey, 1998; Koballa et al., 2008). One mentor simply operated in utter chaos where it became apparent the school principal was hoping the novice would train the mentor (this conception not yet identified in the research), and I worked and learned from some mentors who masterfully combined the best elements of many of those conceptions within an overarching collaborative, colearning, co-constructivist model (Koballa et al., 2008; Darling-Hammond & Bransford, 2005).

These experiences illustrate what many researchers have determined: that despite the recognition that mentors play a critical role in the development of new teachers (Darling-Hammond & Bransford, 2005; Franke & Dahlgren, 1996), in practice mentoring plays out in multiple ways, not always consistent with research-informed methods and knowledge about educating teachers or supporting the development of new teachers’ dispositions, knowledge, skills, and intellectual habits of mind necessary to successfully educate today’s children (Darling-Hammond & Bransford, 2005; Feiman-Nemser, 2012). Without a “shared vision of good mentoring” that presents “mentoring as a practice that engages novice teachers in the

intellectual work of teaching, striving to instill in [novices] intellectual habits that foster student learning” (Schwille, 2008, p. 139), two concerns arise around the value of clinical practice. One, mentors and novices risk defaulting into “apprenticeships of observation” (Lortie, 1975), primarily informed by mentors’ and novices’ own past experiences rather than current knowledge around teaching and learning (Smagorinsky & Barnes, 2014). Secondly, novices often confront the “two worlds pitfall,” where a schism between university course work and field experience teachings sow confusion and risk alienating the novice either from theoretical knowledge or the mentor’s expertise, thereby weakening their overall preparation (Feiman-Nemser, 2012). Thus, a shared mentoring conceptualization consistent with teacher education’s contemporary focus on collaboratively developing a novice’s knowledge *of practice* can function as a powerful and productive referent for mentors’ practices and novice learning (Koballa, 2008; Bradbury 2010).

Educative mentoring, coined by Feiman-Nemser (2012), has gained a great deal of traction in mentoring literature as one such conception. Researchers have turned to it to inform their planning and analysis of studies focused on both preservice (e.g., Stanulis, 2018; Wexler, 2019) and induction mentoring (e.g., Gardiner, 2017; Stanulis & Brondyk, 2013; da Rocha, 2014). Educative mentoring also guides the content and methods of preservice and induction mentor professional development programs studied by a number of authors, (e.g., Barnett & Friedrichsen, 2015; Wexler, 2019; Pylman, 2019; Trevethan & Sandrino, 2017). Additionally, a number of researchers have focused on further developing the concept of educative mentoring, seeking to define specific practices that constitute this mentoring model (e.g., Schwille, 2008; Bradbury, 2010; Stanulis & Brondyk, 2013; Stanulis et al., 2018; Marciano et al., 2019). For my research I looked to the concept of educative mentoring to inform my study design and data

analysis. This concept helped determine questions to ask in interviews and provided a lens for making sense of mentor/novice observations. In this chapter I first describe the educative mentoring concept and its origins. Then, I discuss theory and concepts that helped me consider how to conceptualize educative mentoring for the purpose of investigating how mentors mentor their novices during instruction, as opposed to before or after instructional time. Finally, I present two additional frameworks (Cultural Historical Activity Theory and the concept of pedagogical tools) and explain how these informed my study design.

### **Educative Mentoring**

Educative mentoring regards teaching as a practice that must be learned, a practice in which novices are provided with more than emotional support and professional socialization (Schwille, 2008). Secondly, it sees teacher knowledge as broad and implementation of that knowledge in the classroom as complex. Teachers draw upon theory, subject matter, and pedagogical knowledge, as well as knowledge about children and the teaching context, in order to make informed decisions about what to teach, how to teach, and how to respond in-the-moment to events as they unfold in the classroom. “Mentored learning to teach,” then, “is an opportunity to learn how to weave different kinds of knowledge together in practice” (Feiman-Nemser & Remillard, as cited in Feiman-Nemser, 2012, p. 238). Within this construct, a significant source of this teacher knowledge is context-based and comes from the specialized knowledge teachers gain by knowing their students, the school, and the broader community. Furthermore, in order for novices to learn the kind of teaching advocated by reformers—often referred to as “ambitious teaching”—they need to learn how to elicit and interpret students’ thinking in order to provide them with lessons that are responsive to their particular needs at

particular points in time. These kinds of skills, especially, can only be learned in practice (Feiman-Nemser, 2012).

Thus, mentors assume a role of teacher educator. Educative mentoring proposes that in this role, mentors promote beginning teachers' development "by cultivating a disposition of inquiry, focusing attention on student thinking and understanding, and fostering disciplined talk about problems of practice" (Feiman-Nemser, 2012, p. 272). Through these classroom-based interactions, the mentor welcomes the novice into a collaborative community of practitioners and helps the novice "develop the dispositions and skills of continuous improvement" (Feiman-Nemser, p. 272). Additionally, mentors maintain bifocal vision, attending to novices' current concerns and questions without losing sight of long-term goals for their development as teachers (Feiman-Nemser, 2012). Together as co-learners but guided intentionally and purposefully by the mentor through authentic learning opportunities, the mentor/novice pair co-construct knowledge about powerful teaching and learning.

### ***Theoretical Origins***

Educative mentoring is imbued with Dewey's (1938) "philosophy of experience," the proposition that all "genuine education comes about through experience" but that "not all experiences are genuinely or equally effective;" experience needs to be curated and managed so as to result in continual growth of the learner (p. 25). Feiman-Nemser's mentoring concept adheres to this idea, that certain learning can only come about through authentic teaching experiences, and in order for the experiences to be truly instructive, the mentor must purposefully guide the novice. Socio-cultural perspectives also influence educative mentoring, emphasizing the social nature of learning, the central role that joint participation in activity in particular contexts plays in learning. Vygotsky (1978) posits that not only does learning occur

through social, joint enterprise, but that more advanced thinking skills only develop when children work beyond their current level of mastery, in the “zone of proximal development” (p. 89). The ZPD, he explains, is the “distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance in collaboration with more capable peers” (Vygotsky, 1978, p. 86). Applied to mentors and novices, advancing novice learning depends upon mentor scaffolding of meaningful and challenging authentic experiences, a continual, developmental cycle of learning characterized by internalization of ways of thinking and acting followed by scaffolding of new challenges.

Educative mentoring also draws upon the concept of “cognitive apprenticeship” which features “authentic activity, social interaction and a teacher/coach who makes his or her knowledge and thinking visible to the learner(s)” (Feiman-Nemser, 2012, p. 240). Finally, educative mentoring is informed by Lave and Wenger’s situated learning theory, specifically that through participation in a community of practice, learners become enculturated within that community. Novices, through participation in authentic teaching and learning environments, learn from the talk and action that occur there, developing cultural competence in teaching (Feiman-Nemser, 2012).

Educative mentoring’s appeal lies in its recognition of the textured richness of clinical experience, the necessity of purpose behind a mentor’s mentoring to mine that richness for meaningful novice learning, its consistency with contemporary knowledge regarding the nature of learning, and its developmental approach that provides novices with the tools, knowledge, and dispositions that characterize current conceptions of teacher professionalism. This is why it is used to frame desired mentoring by researchers and as a tool to formulate mentor professional

development (e.g., Barnett & Friedrichsen, 2015; Wexler, 2019; Pylman, 2019; Trevethan & Sandrino, 2017). Additionally, the appeal of educative mentoring as a way to think about teacher education's field experience has led to its conceptual development. For example, multiple studies have identified elements that are essential to its successful enactment, such as the role of reflection (e.g., Bradbury, 2010; Ehrich et al., 2004), co-planning, and co-analysis of student work (e.g., Wexler, 2019; Stanulis, 2018). Similarly, for my study I looked to educative mentoring to inform my study design and data analysis. It helped determine questions to ask in interviews and provided a lens for making sense of mentor/novice observations. However, my primary research interest is how mentors mentor novices *during* instruction, and this is an aspect of educative mentoring that is less defined, as my literature review indicates and scholars have noted (Stanulis et al., 2018; Thompson & Schademan, 2019). Thus, I turned to other theories and concepts regarding teaching and learning to help me begin conceptualizing mentoring *during* instruction, or as I call it, mentoring *in-the-moment*. First, I describe decision-making theory and relate it to educative mentoring in-the-moment. Next, I detail the concept of teacher noticing and connect it to educative mentoring in-the-moment. Then, I explain how a conceptualization of interruption contributes to ideas around educative mentoring in-the-moment. Finally, I look to the concept of cognitive apprenticeship for possibilities in adding to conceptualization of mentoring in-the-moment.

### **Developing a Conceptualization of Educative Mentoring in-the-Moment**

I conceptualize educative mentoring as a cognitive and transformational activity in which mentors promote beginning teachers' development by purposefully cultivating a disposition of inquiry, focusing attention on student thinking and understanding, and engaging the novice in disciplined talk about problems of practice (Feiman-Nemser, 2012). Furthermore, this kind of

active mentoring occurs not just in co-planning and debriefing conferences, but also occurs *during* instruction, in the moments when teachers engage students in learning and continually problem-solve. Educative mentoring during instructional time engages novices in inquiry about the progress of the lesson as it unfolds, about student thinking and understanding and subsequent, responsive, on-the-spot decision-making to best guide student learning. Underlying my conceptualization of mentoring in-the-moment is the assumption that there are unique opportunities for novice learning during instruction that post-lesson and end-of-day debriefing conversations cannot replace. The relentless march of a school day means that so much of what happens over the course of the day—questions that arise, decisions made, student interactions, observations of student learning—is forgotten or subsumed by new, immediate pressures to focus on what will be happening next. Educative mentoring in-the-moment provides a means to capture powerful learning opportunities that otherwise are lost.

To help with conceptualizing educative mentoring in-the-moment, I look to theory and concepts that focus on *teacher* and *student* learning during instructional time in order to begin conceptualizing how educative mentoring could foster *novice* learning during instructional time. First, I look to learning science to help understand an aspect fundamental to active instruction in a classroom—teacher decision-making—and what that theory implies about mentored learning to teach during instruction. Next, the concept of teacher noticing and its vision of a “teacher-in-action” helps build a conceptualization of a “mentor-in-action.” Then, a conceptualization of interruptions helps envision how mentoring in-the-moment can actually be enacted in a classroom. Finally, the concept of cognitive apprenticeship and its related instructional environment framework helps conceive what educative mentors might do in order to actively foster novice learning in-the-moment.

### ***Teacher Decision-Making***

In her review of teacher decision-making theory, Borko (2008) describes how scholars in the 1970s, frustrated by what they and the public at large considered to be too much attention to theory in teacher education to the detriment of preparing new teachers to cope successfully for the actual, complicated nature of classroom teaching, began focusing on decision-making as the activity “at the heart of the teaching process” (Bishop, as cited in Borko, 2008, p. 37). They conceptualized teaching decisions as “the fundamental link between complex, real-time teaching situations and practical actions in classrooms” (Borko, 2008, p. 39). Furthermore, decision-making permeates teaching practice: teachers make decisions before, during, and after lessons. Before and after lessons, they reflect upon recent lessons and student learning, explore resources, choose curriculum, and plan how to move forward both in the short and long-term. These before and after lesson decisions can be made with deliberation and advice. Within lesson decisions, however, are inherently complicated due to the complexity of the information that the teacher needs to process and the lack of time for reflection or obtaining advice. These decisions revolve around implementation and/or modification of a lesson and the way the teacher delivers it, processing student input and building upon it to direct student learning in-the-moment, correcting misconceptions, motivating individual students, monitoring behavior and managing relationships and materials. Furthermore, it is during instructional time that teachers face the critical challenge of understanding individual student thinking—while gathered in a group of twenty to thirty children—and then acting upon that understanding (Borko, 2008). The complicated and immediate nature of in-the-moment decision-making, particularly for new teachers, can be inordinately “harassing” (Borko, 2008)—demanding and simultaneously critical for them to learn (p. 40).

Cognitive science has shown that decision-making in-the-moment does, however, become less “harassing” with experience and training, as schemata are developed which enable teachers to categorize information and recognize connections between concepts, lessening the frantic mental search through random lists of information that might shed light on what is happening during the lesson and how one might respond (Darling-Hammond, 2005). Thus, educative mentoring, through its attention to purposeful and guided novice learning, can provide an experientially powerful way to help new teachers build their schemata. However, the very nature of schemata presents a conundrum for mentors helping novices build them: schemata allow experienced teachers to make “on-the-fly” decisions automatically; only unexpected situations usually prompt an experienced teachers’ awareness of their decision-making (Borko, p. 44). Yet, for a novice, virtually every moment in a classroom feels unexpected and new. Fundamentally, the mentor and novice are mismatched in the way they experience a classroom. The challenge for mentors, then, is to identify their own decision-making in the midst of instruction and the double challenge is to make it visible and instructive for their novices. Taking up these challenges is a part of educative mentoring in-the-moment.

### ***Teacher Noticing***

Another concept that helps engender understanding of the significance of mentoring during instructional time is teacher noticing. Underlying the concept of teacher noticing is a stance that recognizes “an image of the teacher-in-action as a teacher in a maelstrom, confronted with a ‘blooming, buzzing confusion of sensory data’” (Sherin et al., 2011, p. 4). Here the teacher is not a passive presence as activity swirls around her; instead, she actively tries to make sense of the information coming at her from all directions, while guiding children’s learning. In fact, in order to guide student learning, the teacher must be aware of multiple data inputs from

around the room, decide what is salient, and choose whether or not and how to respond to which data.

Teacher noticing literature presents a range of conceptualizations, but in general, Sherin (2011) contends, authors agree on two main processes that define teacher noticing: “[a]ttending to particular events in an instructional setting” and “[m]aking sense of events in an instructional setting” (p. 5). Teachers, with their proverbial eyes in the back of their heads, are aware of a plethora of detail in the classroom, including which students are on task and which are not, the expressions on students’ faces, how materials are being handled, what time it is, whose turn it is to go the bathroom, the content of students’ contributions to a discussion, and so on. At the same time, however, they decide which data point to actually pay attention to and which to ignore, which to focus on immediately, which to put off till later, and how much time to spend on any given “noticing.” At the same time that teachers attend to the many happenings, big and small, in their classrooms, they interpret them, “relating observed events to abstract categories and characterizing what they see in terms of familiar instructional episodes” (Sherin et al., 2011, p. 5). These two interrelated processes, attending to particular events and interpreting them, are cyclical and shape instruction, both in the future and in-the-moment.

Similar to teacher decision-making theory, teacher noticing provides a way to further conceptualize educative mentoring “in-the-moment.” Teacher noticing helps foreground teacher work during instruction, de-mystifying how and why teachers respond as they do during a lesson. Drawing upon this concept, then, educative mentoring in-the-moment highlights the image of “teacher-in-action,” and pairs it with an image of “mentor-in-action.” This mentor-in-action does not attempt to teach the novice every possible way she could respond to all events during instruction; rather, she helps her novice better see what is happening, engages her in interpreting

what she sees and selecting what to attend to and how. This kind of mentoring seeks to help the novice develop constructive, situational awareness in order to build the novice's capacity to fluidly adjust instruction as needed to promote student learning.

The concept of teacher noticing directly connects to educative mentoring's insistence on a laser-like focus on student thinking and understanding. Multiple studies of math, science, and literacy instruction, for example, have investigated how teachers notice, make sense of, and respond to student thinking (e.g., Barrett et al., 2002; Benedict-Chambers & Aram, 2017; Luna & Sherin, 2017; Shack et al., 2013). Other teacher noticing research has focused on issues of equity in order to more directly investigate the "cultural, social, and emotional contexts that profoundly influence students' lives" and thus their learning (Pomerantz & Kaufman, 2020, p. 160). Ellis et al. (2020) state that extending noticing beyond a strictly cognitive approach to understanding student learning is critical if researchers "are to capture learning as it happens in vibrant classrooms" (p. 76). Applying this construct to educative mentoring in-the-moment means that mentors help novices gain proficiency in including understandings about social, emotional, and cultural contexts in their interpretations of situations as they unfold and in their responses. Furthermore, conceptualized in this way, educative mentoring in-the-moment becomes a valuable opportunity for the novice's situated learning, where values and beliefs that guide the mentor's thinking and actions become visible to the novice and open to scrutiny.

### ***Interruptions***

Both teacher decision-making and teacher noticing conceptualize teaching as active sense-making: processes that involve taking in the swarm of data points that emerge when working with a room full of children, interpreting the data, and making choices of how, when, where, and whether to respond to which input. In considering what can facilitate these sense-

making processes that take place during classroom instruction, Furman and Larsen (2020) call for “thinking-in-action,” a practice similar to, but more expansive than Schon’s vision of teachers engaging in reflection-in-action. While reflection-in-action, according to Furman and Larsen (2020), is concerned with teacher efficacy (“whether predetermined goals are met”), thinking-in-action, they contend, adds an ethical dimension in which the teacher also examines what goals *should* be met at any given time (p. 2). To facilitate this kind of thinking-in-action, Furman and Larsen (2020) envision teachers incorporating pauses during instruction, interruptions in the flow of the lesson to provide teachers with thinking moments: opportunities to consider not just how best to attain preset lesson objectives, but also whether diverging from a lesson or even jettisoning preset objectives to attend to emerging student needs might be called for (p. 2). Furman and Larsen (2020) conceptualize these interruptions as generative thinking opportunities, in contrast to the conventional view of interruptions as rude social behavior to be avoided. Self-imposed interruptions, they contend, support the kind of thinking-in-action that is necessary for teachers to be thoughtful decision-makers during instruction.

Not only do Furman and Larsen (2020) consider interruptions as an “exercise to support thinking-in-action,” they also investigated interruptions as a practice that can help make thinking-in-action visible for novice teachers (p. 3). As teacher educators, Furman and Larsen took up the pedagogical challenge of how to help novice teachers understand thinking-in-action and its role in the classroom by using interruptions to make their own thinking visible when teaching their math methods course (Furman & Larsen, 2019). During instruction, they regularly interrupted each other to pose questions about decisions that were being made in-the-moment, but also sometimes interrupted to add ideas or propose another way of helping students solve a math problem. They found that students in their classes became more aware of the intentionality

behind teaching moves, recognized more details in the instructors' teaching practices, and better understood the importance of responsiveness to student thinking in instructional decision-making. Furthermore, these researchers found that students reported not just better awareness overall, but a more active approach to their own learning, and increased reflection upon what these interruptions were teaching them about their own futures as reflective practitioners.

Furman and Larsen's two-dimensional construct of interruptions-- interruption providing teachers with decision-making moments, and interruption as a teacher educator tool-- seems entirely compatible with educative mentoring-in-the-moment and potentially contributive to its conceptualization. First, their ideas around interruptions highlight the importance of responsiveness to student thinking and understanding, a central goal of educative mentoring. Secondly, their investigation of how interruptions can help make this kind of thinking visible to novices in a university setting elicits the possibility that such interruptions might do the same in the clinical classroom. Third, this conceptualization considers interruptions as a way to invite students 'into the action,' an invitation to engage collaboratively in sense-making of and problem-solving around complex teaching and learning events. Additionally, their enactment of interruptions modeled intentionality, another key component of educative mentoring. And finally, the purpose of each interruption, occurring during instruction, was to use those moments to provide educative opportunities that otherwise might be lost. Thus, I look to this conceptualization of interruptions to help me envision just how educative mentoring in-the-moment unfolds in a clinical classroom, and towards what purpose.

### ***Cognitive Apprenticeship***

Cognitive apprenticeship was conceived as an "instructional paradigm," a model for teaching students that revolves around the importance of making thinking visible (Collins et al.,

1991). Asserting that traditional schooling hides key aspects of expertise from students and denies them opportunities to develop reasoning and strategies to apply knowledge towards solving authentic problems, Collins et al. (1991) contend an apprenticeship approach to learning would allow students to better integrate skills and conceptual knowledge, amounting to deeper and more transferable learning. A cognitive apprenticeship, however, is different from a traditional apprenticeship in three ways. One, in a cognitive apprenticeship the teacher deliberately surfaces thinking, making the teacher's and the students' thinking visible, enhancing mutual understanding. Two, most curriculum in traditional schooling is quite abstract in nature, divorced from authentic problem-solving. Thus, the teacher must situate the curriculum's abstract tasks in ways that makes sense to students. Three, the teacher presents a range of tasks to students to encourage them to reflect upon and articulate what they have in common in order to figure out what knowledge is relevant in each case and in what way (Collins et al., 1991).

A particular framework for designing cognitive apprenticeship learning environments is then identified, consisting of four dimensions: content, method, sequence, and sociology. Content includes facts, concepts, and procedures to be learned by students, but also includes heuristics and "control strategies," metacognitive strategies that help monitor, diagnose, and mediate problems. Method includes six elements: modeling by the teacher; active coaching of students during tasks; scaffolding of supports for student learning; promotion of student articulation of their thinking, particularly through teacher-guided inquiry; shared reflection by students and teacher upon problems and performance; and exploration, where the teacher encourages students to develop and pursue goals of their own interest. Sequence speaks to the purposeful design of learning experiences for students, taking into account student skill level, short and long-term goals, and an appropriate variety of learning-enhancing challenges. Finally,

sociology of the learning environment emphasizes the social nature of learning, active participation with other students and the teacher, sharing values and beliefs and developing a sense of ownership over their own learning (Collins et al., 1991).

Transferring cognitive apprenticeship and its associated teaching and learning framework to a mentoring context is intriguing. So much of it is clearly aligned with educative mentoring (unsurprisingly since Feiman-Nemser (2012) states that her thinking was influenced by cognitive apprenticeship thinking). Like educative mentoring, cognitive apprenticeship emphasizes learning from participation in authentic problem-solving, learning through purposeful, guided inquiry that is informed by both short and long-term goals, and collaborative engagement in a learning community. Collins et al. (1991) state,

Cognitive apprenticeship does not require that the teacher permanently assume the role of the "expert"—in fact, we would imagine that the opposite should happen. Teachers need to encourage students to explore questions teachers cannot answer, to challenge solutions the "experts" have found—in short, to allow the role of "expert" and "student" to be transformed. Cognitive apprenticeship encourages the student to become the expert (p. 17).

Replacing “teacher” with “mentor” and “student” with “novice” in the above quote provides a lovely summary of a vision of educative mentoring: mentor and novice, side-by-side, engaging in collaborative problem-solving, constructing new knowledge and understanding in the process.

It is also interesting and perhaps instructive to consider which of the specified attributes of cognitive apprenticeship’s teaching and learning framework could be transferred to an educative mentoring framework. The cognitive apprenticeship framework could help in further conceptualizing educative mentoring in-the-moment by providing actionable elements that

mentors enact in-the-moment. Given the previous discussion regarding decision-making and teacher noticing it seems reasonable that educative mentoring in-the-moment might be characterized by modeling, coaching, scaffolding, articulation, reflection, and exploration, with a big dose of making mentor and novice thinking visible.

In my literature review, I show that while many studies refer to and/or utilize educative mentoring to frame their study or aid in data analysis, the vast majority focus on the mentoring that occurs before and after instruction, rather than in the midst of it. As a result, not only has educative mentoring during instruction been minimally explored, it has also been minimally conceptualized. Mentors and novices spend vast amounts of time participating in and observing instruction, and to paraphrase Schon (1991), just because they aren't being actively *guided* during this time doesn't mean that novices aren't *learning*; they just might not be learning what we want them to learn. Educative mentoring in-the-moment, then, must be attended to, its conceptualization more fully developed, in order to leverage the less than fully tapped learning potential that exists within the "blooming, buzzing" (Sherin, 2011) busyness of real-time teaching and learning (p. 4).

### **Cultural Historical Activity Theory**

Originating with Vygotsky's theories about mediated learning, Cultural Historical Activity Theory (CHAT) suggests that learning is developed through participation in "activity systems," collective problem-solving actions, carried out in specific settings and mediated by artifacts that help achievement of the desired goal (Yamagata-Lynch & Haudenschild, 2009). Activity theory is particularly effective in recognizing the complexity of activities and systems in which people participate and how various aspects of the systems interact. Additionally, while recognizing activities' contexts and the positionality of individuals, the theory also positions the

actors in these systems as having agency, making choices about how they participate in activities. As a result, CHAT offers a useful framework for examining mentoring and more specifically, how a mentor enacts mentoring in-the-moment. This study positions mentored learning to teach as an activity system and used Engestrom's (2001) second generation conceptualization of CHAT to reveal the innerworkings of that system. For the purposes of this study, I focus on one mentoring activity system, where the mentor is the subject and the object is novice learning,

Five main principles undergird Engestrom's (2001) conceptualization of CHAT. First, the activity system itself is the unit of analysis. While individual and group actions may function independently within an activity system, this principle holds that they cannot be fully understood outside the context of the activity system in which they take place. Thus, while my main interest is educative mentoring in-the-moment, CHAT positions that focus within a mentoring activity system as a whole. Second, the collective nature of an activity system means that multiple points of view, personal histories, and interests weave their way through the system, often resulting in tensions. These tensions can be a source of problems, but also can generate innovation as conflicting viewpoints and understandings are made visible and negotiated. In alignment with this principle, this study included examination of various point of view, personal histories, and interests of individuals within this particular mentoring activity system, namely the mentor and novice, and explored whether their co-existence gave rise to any tensions. According to the third principle, in order to understand an activity systems' potential and problems, the histories of the activity, its object, and related theoretical ideas and tools must be studied. This principle, then, called for examination of the histories behind this mentoring activity system, what motivated it, and how concepts and tools have been and are utilized in carrying it out. The fourth principle

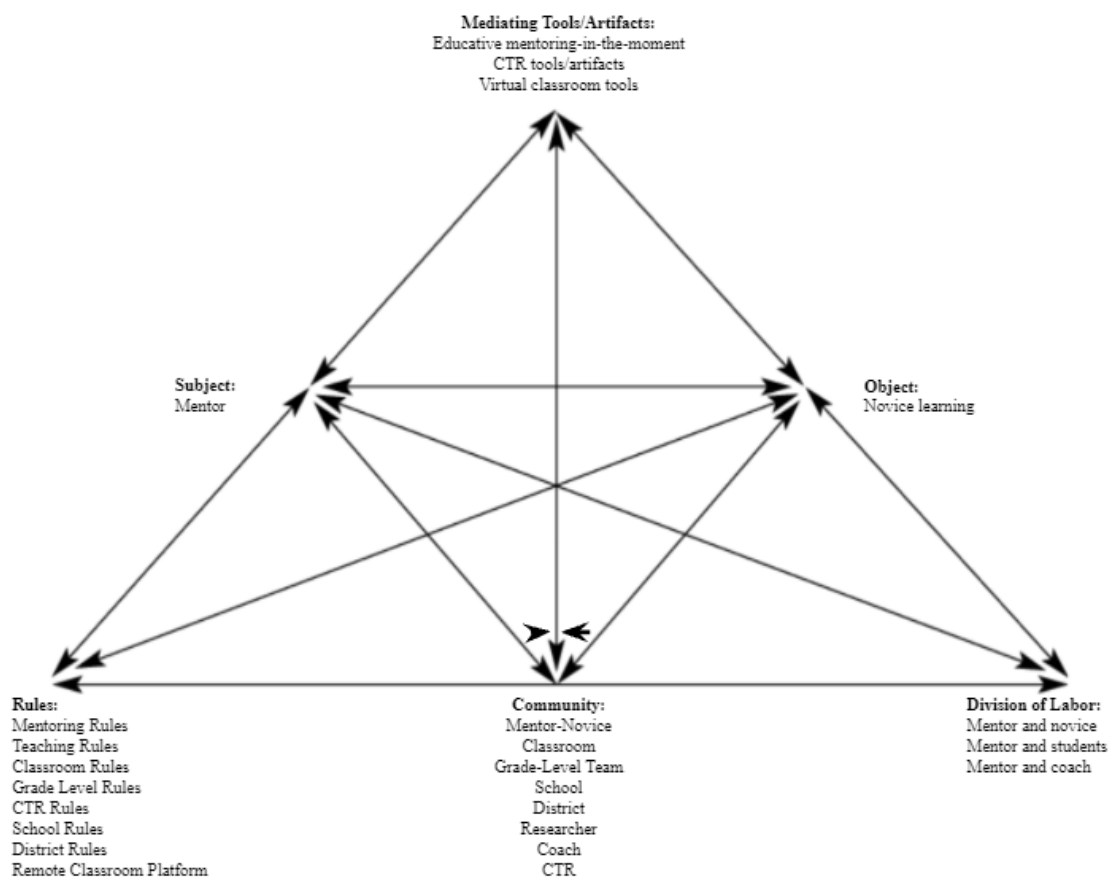
states that contradictions, “historically accumulating structural tensions within and between activity systems” (Engestrom, 2001), play a central role in activity systems, potentially disrupting or disturbing the activity, but also possibly inspiring wholesale transformation of the activity as opposed to changes *within* the system (p. 137). Because this study was limited to one mentoring activity system, I was interested in exploring it for its contradictions and how they did or did not result in innovation or change to this same system. In other words, while one might imagine contradictions within a mentoring activity system leading to innovation in how the mentor teaches classroom students, this study only looked for how contradictions did or did not lead to changes in mentoring. CHAT’s final principle stipulates that, as a result of these contradictions playing out over time, individual actors within a system may question the activity and push it to unfold in different ways. These changes may be a result of individual action or a result of collaboration and collective decision-making, and may lead to “expansive transformation,” the reconceptualization of the activity “to embrace a radically wider horizon of possibilities than in the previous mode of the activity” (Engestrom, 2001, p. 137). Thus, not only can accumulating contradictions spur within-system innovation or change, they can lead to wholesale reinvention of systems. Examining this mentoring activity system for expansive transformation, however, was beyond the scope of this study; expansive learning involves cycles of learning and experimentation, cycles which can take years to unfold (Engestrom, 2001).

Using Engestrom’s second generation activity system conceptualization to frame the study helped in designing interview and observation protocols in order to identify and understand the interplay between the mentoring system’s components, recognize tensions and contradictions, and how the system accordingly responded. Additionally, CHAT served as a means to frame analysis of the data collected. Figure 1 below provides a visual to aid

understanding of this study's particular mentoring activity system and the principles described above. In this mentoring activity system, the mentor is the subject and the object is the novice and his learning. The bottom of the triangle shows the context in which this activity system functions. Multiple layers of rules operate within the system, from rules that mentors historically follow to those that the Coastal Teacher Residency Program imposes, as well as rules that all fifth-grade teachers at this school have agreed upon regarding classroom instruction. The system also includes multiple communities, including the two-person mentor-novice community, the their classroom community including students, the triad community with the CTR instructional coach, and the mentor's membership in communities outside the classroom, each of which plays a role in the system. The bottom right of the triangle shows the division of labor that exists within the system. Certain expectations and understandings exist about who does what during mentoring activity, including the mentor, novice, students, and in this system, the CTR coach who occasionally visits. At the top of the triangle the tools that are used to mediate the activity are identified, in this case, CTR tools provided to the mentor and virtual tools such as Zoom or Microsoft Teams which became a part of the activity in this time of Covid and remote teaching and mentoring. Educative mentoring in-the-moment is located here, under Mediating Tools, because it functions as a conceptual device, providing visions around mentoring, teaching, and novice learning that mediate mentoring enactment. Because my research questions center on educative mentoring in-the-moment and what tools the mentor uses to enact this kind of practice, this study sought to explore further educative mentoring in-the-moment pedagogical tools as part of this Mediating Tool list. The next section of this chapter presents the concept of pedagogical tools in more detail. My findings regarding mediating tools are shared in Chapters 7 and 8 of this dissertation.

Of particular importance in this graphic representation of the mentoring activity system are the arrows within the triangle, indicating the interplay between the various elements. It is within this interplay that CHAT seeks to illuminate tensions and contradictions that manifest themselves as the activity is carried out. In addition, whether these tensions and contradictions contribute to change or innovation in different points around the triangle or even lead to a complete recomposition of the triangle can be considered. This case study of mentoring revealed two tensions within the system, findings which are presented in Chapter 6. How they related to other elements of the activity system, including innovation in mediating tools, is also discussed in Chapters 7 and 8.

**Figure 1** Activity system model of mentoring



*Note.* Adapted from Engestrom, 2001, p. 135

### **Pedagogical Tools**

As noted above, within activity systems, subjects utilize tools to help them mediate the activity in which they are participating in order to achieve the desired object. In the course of engaging in the daily problem-solving that permeates day-to-day teaching, teachers use specific *pedagogical* tools to help achieve their objects. These tools can be both conceptual (principles, ideas about teaching and learning) and practical (classroom practices, strategies, curriculum materials) (Grossman, et al., 1999). Within this CHAT framework, I position educative mentoring in-the-moment as a conceptual tool utilized by the mentor to mediate attainment of novice learning. The mentor's understanding of how novices learn and what they should learn to be a good teacher inform the conception of educative mentoring in-the-moment as it plays out in this activity system. Inquiry into exactly *how* the mentor enacts educative mentoring in-the-moment also includes identification of any practical pedagogical tools utilized.

While Grossman et al. (1999) broadly define practical tools as practices, strategies, and resources, other researchers in teacher education have worked to further refine what practices and strategies as pedagogical tools might look like. For example, Lampert et al., (2010) describe developing key instructional routines to use with novices in order to teach them core practices in the teaching of mathematics. These routines are structured novice enactments of key instructional activities, supported by teacher educators, and focused on developing the professional judgment that makes these activities responsive to student needs. Within a CHAT framework, these kinds of instructional routines qualify as practical pedagogical tools because they mediate teacher educators' instruction of novices. Gibbons et al. (2017) extend this idea of routines in teacher education to include "organizational" routines, routines that teams of people

enact in their work together. Gibbons et. al describe a routine called “Teacher Time Out,” in which a team of educators occasionally called for pauses in instruction during classroom observations in order to engage in joint inquiry around specific teaching decisions and moves as they happened in the classroom. The Teacher Time Out routine thus functioned as a pedagogical tool, mediating the team’s learning about the teaching of mathematics with the goal of improving instruction. As part of the CHAT framework for this study of mentoring, I recognized instructional and organizational routines as types of practical pedagogical tools.

In their study of learning to teach English, Grossman et al. (1999) suggest that through the process of adopting pedagogical tools in a learning environment, individuals internalize “ways of thinking endemic to specific cultural practices...” (Grossman, et al., p. 15); through the active utilization of the tools, they become competent in the social practice. Furthermore, depending upon the social context in which they learn how to use tools and individual characteristics of the learners, appropriation of these tools may vary. Some may appropriate the tool not at all, some in name only (for example incorporating “cooperative learning,” when the enactment is limited to students sitting together at a table, not actually engaging in collective learning), and some may fully appropriate the conceptual underpinnings of the tool (Grossman, et al., 1999). Examining appropriation of pedagogical tools in this study helped reveal the role differing mentor and novice understandings around teaching and learning played in this mentoring activity system.

Additionally, CHAT holds that individuals within activity systems develop mediating tools themselves. This inquiry then, also explored whether the mentor herself developed pedagogical tools to aid her enactment of in-the-moment educative mentoring, what characterized those tools, and how they functioned.

### **Chapter Three Summary**

This chapter presented theoretical and conceptual frameworks that guided my study's design, implementation, and analysis. First, I described the concept of educative mentoring and its origins. Second, I considered a conceptualization of educative mentoring in-the-moment, first by moving it into instructional time. Then I explored how four additional concepts-- teacher decision-making, teacher noticing, interruptions, and cognitive apprenticeship-- could contribute to understandings about what educative mentoring in-the-moment could uniquely offer to support novice learning. In the second half of the chapter, I described how Cultural Historical Activity Theory (CHAT) and the concept of pedagogical tools aided my thinking around the activity of mentoring, factors that influence it, and how mentors mediate the activity in order to achieve novice learning. Next, in Chapter Four, I describe how these theoretical and conceptual considerations took form in the methods chosen to explore answers to the study's four research questions.

## Chapter Four: Methods

As detailed above, while developing an educative stance in mentoring has been identified by researchers as central to improving the quality of the novice clinical experience, the actual activities or tools that mentors utilize to enact this type of mentoring have been minimally defined. Additionally, because mentors and novices spend the majority of their time in a classroom in the midst of instructing children, understanding how mentors enact an educative stance *during* instruction to advance novice learning merits attention. This qualitative single-case study was designed to address this research gap. It investigated how one CTR mentor enacted, during the pandemic, in-the-moment educative mentoring, and asked the following questions:

- How did this mentor enact in-the-moment educative mentoring?
- What tensions emerged for the mentor and novice teacher in enacting educative mentoring?
- What tools did the mentor utilize, adapt, or generate for use during instructional time to mediate these tensions, and to what effect?

Addressing these questions contributes to understandings of “in-the-moment” mentoring practices for moving mentors towards more educative stances during instructional time.

To answer these questions, I designed a qualitative single-case study. I operated within an interpretivist paradigm, pursuing one way out of a number of possibilities to understand the mentoring experience (Glesne, 2016). Furthermore, the CHAT framework that I utilized presents human activity as complex, with a variety of ideas, traditions, and experiences influencing how people participate in activity that changes over time. The interpretivist paradigm recognizes this complexity, its temporal nature, and understands human experience as socially and historically informed (Glesne, 2016).

Below, I present my rationale for the single-case study design and describe the various settings and contexts in which the investigation took place as well as participant selection. I then continue with a description of my data collection and analysis methods, concluding with a discussion of study limitations.

### **Single-Case Selection**

A single-case study design was appropriate for this investigation of mentoring for several reasons. First, it met the “critical case” condition as defined by Yin (2018). This study of one mentor’s mentoring “in-the-moment,” provided a well-defined bounded opportunity to confirm, challenge, or extend theories around educative mentoring (Yin, 2018). For example, through the examination of one mentor’s mentoring of her novice over the period of seven months, the research sought to further identify features of educative mentoring, with a particular focus on extending this concept by inquiring into educative mentoring “in-the-moment,” an aspect of educative mentoring that has not been fully explored. Additionally, this case provided an opportunity to explore a case that is uniquely “common” yet also “unusual,” and ultimately potentially “revelatory” (Yin, 2018). While mentoring new teachers is a common practice in teacher education and thus wholly deserving of deep understanding, this particular case was also unusual in its context: the focal mentor participates in a program that trains its mentors in mentoring practices (unlike most mentors of novice teachers throughout the United States as established in my literature review), and this mentor, her novice, and her students interacted solely in an online teaching and learning environment as a result of the COVID-19 pandemic. This was an absolutely unique situation for learning to teach, previously unavailable for research; therefore, potential existed to “uncover some prevalent phenomenon previously inaccessible to social scientists,” (Yin, 2018, p. 51). Thus, the critical, paradoxically common yet unusual, and

revelatory conditions that characterize this case contributed to a sound rationale for a single-case study design.

### *Context*

The CTR, school, and remote teaching and learning contexts described below played an important role in data collection and analysis for this study. In utilizing CHAT for a theoretical framework, the rules, communities, and division of labor that characterize the study's various contexts were important to identify and analyze, both to understand the component parts of the mentoring activity system being investigated, and to understand the ways these component parts interact as the mentor teacher "subject" attempts to achieve the "object" of in-the-moment educative mentoring.

**Coastal Teacher Residency Program.** This study took place within the context of the Coastal Teacher Residency Program, a one-year Masters in Teaching teacher preparation program designed and implemented by four partners: an R1 public university, the local urban school district within which it is situated, a local non-profit, and the local teachers union. CTR partners with a number of Title I elementary schools, each of which hosts a small group of "residents," who are novice teachers. Each novice spends four days a week for one entire school year with an assigned mentor and on Fridays novices attend to their own coursework. As part of this program, mentors receive regular professional development and training. Since 2015, this professional development included training in certain mentoring practices, specifically those developed in partnership between university-based teacher educators, researchers, and mentor teachers. Because CTR historically has provided its mentors with training in these practices and usually requests that mentors report and reflect upon their implementation of the practices, I

chose this program within which to conduct this study. For the purpose of clarity, in this study “residents” are referred to as “novices.”

**Mentoring Program Overview.** Each year, the Coastal Teacher Residency Program pairs its 25-32 novice teachers with mentors who then host the novices in an elementary classroom for the entire academic year. The program pays each mentor \$3200- \$3500 (depending upon funding) for this work (significantly more than mentors working for traditional university-based teacher education programs<sup>5</sup>), supports them with monthly professional development focused on mentoring, and teams them with a university-based instructional coach to further support each novice. Approximately 50% of mentors return to mentor for CTR again, and the rest are recruited through principals at the partner schools. The program tries to limit the number of schools it partners with while also prioritizing the quality of mentor participants—a balancing act. Typically, mentor-novice pairs self-select through a sort of “speed-dating” experience: first, mentors and novices receive bios from each other, then they meet for brief conversations during a program-hosted “Meet and Greet.” Next, mentors and novices submit their top choices for who they would like to work with, and program administrators use that data to finalize the pairings by late June, just a few weeks into the beginning of the novices’ first quarter in the program.

Besides training in specific mentoring practices, CTR also provides its mentors with a year-long framework for mentoring, including timelines with scheduled informal and formal observations, expectations for novice teaching responsibilities over time, templates for observations and lesson plans, detailed descriptions of novice coursework, and development of dispositions that enhance mentoring and mentoring how to teach with a social justice orientation. Central to CTR’s mentoring framework is their Gradual Release guide. This guide outlines novice and mentor responsibilities on a weekly basis throughout the year, stipulating how much

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<sup>5</sup> Mentors in CTR’s university partner’s traditional teacher education program earn \$500, by comparison

of a lead novices should be taking in the classroom and in which content areas (with increased responsibilities normally corresponding with novices' particular coursework focus at that time). Thus, over a period of weeks, mentors engage novices in a variety of classroom activities, and steadily "release" their novices, culminating in a week of "lead teaching," a time when each novice assumes "an active role in all classroom activities across the day, with a mix of whole/small group instruction". Gradual Release is cyclical in nature: after a week of lead teaching, novices step back from leadership and mentors step in and the whole cycle begins again, with approximately three cycles per year. Also stipulated in this guide is "Sacred Meeting Time," a weekly, hour-long mentor-novice meeting devoted to reflection and goal settings. The Residency program requests that mentors and novices "protect" this meeting, by committing "to meeting together regardless of other interruptions or events...Sacred Meeting Time should be separate and *distinct from regular lesson planning*" (Appendix A). Guidelines also call for novices to eventually take the lead in directing Sacred Meeting Time. The Coastal Teacher Residency materials and mentor professional development sessions also communicate expectations for mentors to lead novices in shared planning, reflection, and co-teaching, and respond to needs of the individual novice.

**Soundview Elementary School.** Soundview is a K-5 Title I elementary school in a large, urban school district and a CTR partner. During the 2020-2021 academic year, five Soundview teachers worked as mentors for CTR, including the mentor participant in this case study. Located in a diverse, urban neighborhood, 490 students enrolled for the 2020-2021 school year, a 9% decline from 2019-2020, consistent with a district-wide decline, attributed by district officials to parent choices in response to the switch to remote instruction during the pandemic.<sup>6</sup> School district demographic data show an ethnically diverse student population: approximately 50%

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<sup>6</sup> All school and district data were sourced from official school, district, and state websites

Asian, 15% white, 15% Latinx, 11% two or more races, 5% African American, and less than 1% American Indian/Alaskan Native. English language learners comprise about 38% of the student body, and close to 60% of students are eligible for free and reduced lunch. Soundview, an open-concept school, has won four awards for student achievement since 2006, with the last available achievement data showing the Soundview “Sea Lions” achieving higher proficiency in math (69%) and reading/language arts (66%) than the state’s averages (51% and 61% respectively). It is, however, important to note that no part of this study *physically* took place at Soundview, with all activity taking place remotely.

**Remote Teaching and Learning.** For this case study, an additional, unique context resulted from COVID-19 schooling restrictions. All CTR programming was carried out online during the 2020-2021 school year, including mentor training. Additionally, because CTR’s school district partners shifted instruction entirely online, the mentor, novice, and students interacted through the Microsoft Teams virtual meeting platform. While the school district made an initial foray into online teaching and learning beginning in March of 2020, 2020-2021 was the first school year in which mentors, novices, and students began the academic year virtually. Some students and teachers, including this case study’s focal mentor and novice, returned to classrooms part-time in April 2021, after the bulk of my data collection was complete.

**Jessie’s Fifth Grade Virtual Classroom.** From September 2020 through the beginning of April 2021, the focal mentor’s (Jessie’s) fifth grade students met remotely from 8:30 am to 2:30 pm Monday, Tuesday, Thursday, and Friday, with students working asynchronously on Wednesdays. The four days of synchronous time consisted of morning and afternoon blocks of Social-Emotional Learning, English Language Arts, Math, Social Studies, and Science, the mixture of subjects changing month to month. Between morning and afternoon blocks, students

attended resource and enrichment classes, worked on assignments, and on a rotating basis met individually with Jessie and her novice, Mario. Using the “Bitmoji,”<sup>7</sup> app and Google Slides, Jessie created a digital, graphic representation of her classroom, replete with facsimiles of posters, a white board, bookshelves with live-linked student resources, special buttons linked to videos and previous lessons, images of student work “posted” on the walls, and avatars of Jessie and Mario. At one point, students selected avatars for themselves and Jessie created a class “photo” which “hung” on a wall as well. Everyday Jessie and Mario posted the day’s schedule and special instructions on the white board, with live links to resources students would need throughout the day. This digital classroom image provided a colorful “homeroom” for students, with Black Lives Matter, Safe Spaces, and “[Our class] is Awesome!” posters announcing classroom community values while also functioning as a central location for students to access materials such as exit tickets, math worksheets, and readings by clicking on various images.

Whereas Jessie’s homeroom page offered a platform for students and teachers to manage materials and convey a vision of a classroom community space, all classroom action occurred on the school district-chosen Microsoft Teams videoconferencing platform. Every morning Jessie and Mario signed into their Teams classroom, cheerfully greeting the class as each student signed in and appeared remotely, little squares popping up on the screen with either a live feed of their faces or a black circle with their initials if students’ cameras were off. Prior to the school year, the Soundview faculty in accordance with district guidelines decided that teachers would not require students to have cameras on, and throughout the study it was normal for just two to four students to routinely have their cameras on, with the rest of the students appearing visually only occasionally. Jessie and Mario, however, regularly encouraged verbal and “chat”

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<sup>7</sup> See <https://www.weareteachers.com/virtual-bitmoji-classroom/> for a visual example of these virtual classroom representations

participation from students, and students often used chat for small talk and posting favorite emojis like hearts, thumbs up or hand-on-head. Jessie and Mario facilitated the Teams “classroom,”<sup>8</sup> sharing their screens, providing students with links to lesson materials, and enabling or disabling various participation features such as “chat.” When transitioning between subjects during the day, Jessie and Mario routinely gave students short breaks, set a timer for three or four minutes, and encouraged them to turn off their cameras, get up, move around, and stretch. Jessie and Mario also turned their cameras off during breaks.

Just as the students joined the collective digital space from their own homes, so did Jessie and Mario. Mario created a workspace in his apartment, consisting of a couple desks and a computer monitor. Jessie worked from her basement where she had set up a space for herself, consisting of a desk and a couple of monitors. Hand drawn pictures, notes from students and former mentees, and a colorful, beginning-of-the-year paint chip project adorned a file cabinet behind her. A few yards to her right, her 8-year-old son, Gus, had his own remote school set-up, with a desk and computer. Occasionally, Gus would appear during Jessie’s class time in order to ask his mom a question or listen when she read a story or told a joke to her students, and sometimes Teams’ audio captured Gus’s own remote lessons in progress. For most of the school year, Jessie was not allowed into her classroom at Soundview, so this shared basement space, rearranged over the summer to accommodate remote teaching and learning, became the locus for her professional activities, the place from which she engaged in teaching and mentoring.

**Remote Mentoring Context.** In a typical year, CTR mentors and novices spend hours in each other’s company, starting with casual get-togethers in the summer, leading to side-by-side prep work before the first day of school, followed by seven to eight hours a day in the classroom,

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<sup>8</sup> For the rest of this paper, use of the word “classroom” refers to this Teams-facilitated “videoconference,” unless otherwise stated.

engaging in school activities, and meeting with students and other teachers in the building. By contrast, for the majority of the 2020-2021 school year, Jessie and Mario interacted primarily through videoconferencing, email, and texts. Over the summer, Jessie invited Mario to a socially distanced meal in her backyard, and on four other occasions they met in front of Soundview to distribute materials to students (in a socially distanced way); otherwise, all lesson planning, debriefing conversations, and other mentoring interactions took place remotely.

***Remote Mentoring Routine.*** Generally, Jessie's and Mario's interactions unfolded over the course of the week as follows. On Sundays by 5:00 pm, Jessie expected to receive lesson plans from Mario so that she could review them and give him feedback before the next day. She communicated this kind of feedback through comments written on his plans, or sometimes via text messages. Typically, Jessie and Mario would first see each other on synchronous school mornings at 8:30am when they both jumped online to welcome students to class. They then worked together with students till a 10:00 am recess. Between 10:30 am and 1:00 pm, students attended resource or elective classes, did independent work, had lunch, and took turns meeting one-on-one with Jessie and Mario to review their work and their learning. From 1:00 pm to 2:00 pm, students rejoined Jessie and Mario for full class lessons.

When not working directly with students during the day, Jessie and Mario usually turned off their cameras and worked independently. Depending upon what happened during the day, Jessie sometimes would ask to meet directly after school in order to debrief a lesson or have a conversation about other things that had come up. Often, they talked in the evening while Mario looked at Math exit tickets and thought about what students would need as follow-up. Once a week, Jessie and Mario met virtually for Sacred Meeting Time, both describing it as a time to generally check-in, discuss how things were going, provide an opportunity for Mario to bring up

any questions around teaching and learning that had arisen during the week, and think together about the next week. While Jessie and Mario scheduled Sacred Meeting Time for Thursdays, that timing changed if Mario or Jessie requested a change, but they still always met. Similarly, while Jessie followed CTR's Gradual Release guidelines, she adjusted some timing and novice-responsibilities in response to Mario's particular needs. This somewhat fluid adaptation of CTR's expected mentoring practices was consistent with CTR's guidance: during a professional development session, CTR directors presented the Gradual Release outline as a "living document," a guideline that could and should change depending upon the demonstrated needs of a novice (See Appendix B).

### *Participants*

Using purposeful sampling, I identified potential mentor participants with the help of the director of CTR (Patton, 2015). One mentor, Jessie, stood out, due to her experience, knowledge, and reputation as an excellent mentor. Jessie had already worked four and a half years as a mentor for CTR and in the fall of 2020 began her fifth year as the Science Methods instructor for novices enrolled in the program. Because this study's intention was to learn how mentors engage their novices in in-the-moment educative mentoring, it was desirable to have an exemplary mentor to learn from. Moreover, the number of professional roles she inhabits provided the case study an additional richness to explore: Jessie is a teacher of children, teacher of novices, and a mentor of a novice. I was also interested in discovering, if, as the most experienced CTR mentor in her school, she also operated as a mentor of other mentors at Soundview. This study design allowed for identification and analysis of the various roles Jessie inhabits, providing more opportunities to better understand her mentoring as an activity system.

Purposeful sampling also helped me recruit a participant who was comfortable and willing to engage in conversations about practice and to make herself and her classroom open for observations. This willingness and openness were particularly important in a year when no teacher had much prior experience in remote teaching and certainly no experience in mentoring a new teacher when all participants, including students, were going to be interacting solely in a virtual environment. Brief introductory conversations with Jessie revealed that she had participated in research before and enjoyed and valued the possible learning that could result, both for herself, CTR, other mentors, and for the field of education.

By default, and with his agreement, Jessie's novice, Mario, also participated in the study.

### **Researcher Positionality**

My positionality in this study took on a unique character. Given the remote format, Jessie's professional life was extremely isolated, and I was the only adult aside from her novice with intimate knowledge about her fifth-grade classroom. Where normally a classroom exists in a social setting next to other classrooms and busy hallways with a variety of people entering and exiting the room, and multiple opportunities for casual conversations with other adults throughout the day, I was the only other adult besides Mario present in this virtual setting. As a result, I also was witness to the ups and downs of Jessie's experience learning to teach and mentor remotely, an experience that had a highly emotional element to it. Our weekly debriefs, consequently, became a place not only for me to hear more from her about her thoughts on mentoring, but also a place where she sometimes looked to me for commiseration or ideas or answers to questions she was pondering. Furthermore, my own professional background as a classroom teacher (though high school, not elementary), mentor (one year only), and university-based instructional coach (ten years), helped position me as a trusted resource for Jessie. As a

participant-observer, I found my role leaning more towards the participant side of the hyphen than I had originally intended. Merriam and Tisdell (2016) point out that this shift over time from more pure observation towards more participation is common, however, in qualitative research, and therefore one must be careful not to intrude on the nature of activities too much so as to overly influence the outcome. Likewise, one must not become so absorbed in the activities that one fails to effectively observe and analyze. I did my best, as Patton prescribes (as cited in Merriam and Tisdell, 2016), to remain aware of the tricky balance I needed to maintain and to allow my insider status to help me more deeply understand the research setting. Indeed, while my own professional experiences allowed me to partially fulfill a supportive role that Jessie sought, they also provided me with insights into her challenges and opportunities, and a source for questions to pursue with both Jessie and Mario.

### **Data Collection**

Over the course of seven months (August 2020-March 2021), data was collected through formal interviews, weekly mentor debriefs, and observations of classroom instruction, mentor/novice lesson debriefs, Sacred Meeting Time, and professional development. I also collected artifacts such as handouts and slides from professional development sessions.

**Table 1** *Data Collection*

	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March
Mentor Interviews		1st			2 <sup>nd</sup>			
Novice Interviews					1 <sup>st</sup>			2 <sup>nd</sup>
Mentor	Fifteen 40–60-minute semi-structured interviews							

Weekly Debriefs								
Classroom Observations	23							
PD Observations	3 PD Sessions	1 Session	1 Session	1 Session	1 Session	1 Session	1 Session	1 Session

### *Interviews*

Over the course of the seven-month study I conducted a series of semi-structured interviews with the mentor and two semi-structured interviews with the novice. All interviews were conducted through Zoom, recorded, and transcribed.

**Mentor Interviews and Weekly Debriefs.** Beginning just as the school year commenced and then over the following seven months, I conducted a total of two semi-structured hour-long interviews with the mentor as well as fifteen semi-structured “Weekly Debriefs,” as Jessie and I referred to them. Both interviews and Weekly Debriefs provided opportunities to learn about Jessie’s experiences with and thinking about mentoring, with a particular focus on mentoring in-the-moment. Additionally, conducting multiple interviews and weekly debriefs with Jessie over time allowed me to check in on self-reporting of the frequency with which she enacted specific in-the-moment mentoring practices as well as to hear if, over time, there were changes in thinking about the practices and mentoring. For the interviews, a semi-structured format allowed me to purposefully guide conversations into areas of interest for me (e.g., educative mentoring in-the-moment, specific mentoring practices) and collect background information on Jessie’s mentoring and teaching experiences and underlying beliefs guiding her practices, while

maintaining some freedom in following interesting thoughts that arose (Merriam & Tisdell, 2016). The Weekly Debriefs consisted of specific questions pertaining to that week's observations and Jessies' goals for mentoring her novice in successive weeks. During these debriefs I often drew upon detailed observation notes of mentor/novice interactions to elicit thoughts from Jessie around various mentoring enactments that had occurred during the week or her experiences during a professional development session (Barton, 2015).

**Novice Interviews.** Twice during the study I also conducted hour-long, semi-structured interviews with the novice, Mario. These interviews were an opportunity for me to learn how Mario experienced his time with his mentor and the various mentoring practices, and how he was thinking about his own teaching knowledge and skill development. Cultural Historical Activity Theory emphasizes the collective nature of activity and the multiplicity of ideas, viewpoints, and traditions that influence how activity systems work (Engestrom, 2001). Thus, it was important that I gather data directly from the participating novice in order to understand the mentoring activity system and any inherent tensions or contradictions. As with the mentor, I drew upon detailed observation notes to elicit Mario's thinking regarding the mentoring practices he was experiencing.

### ***Observations***

During the seven-month span of the study, I conducted 23 classroom observations, 10 observations of CTR professional development sessions for mentors, and several observations of mentor-novice debriefing, planning, and Sacred Meeting Time conversations.

**Classroom Observations.** This study included weekly observations of the mentor/novice pair during instructional time and observations of mentor professional development sessions. My research stance throughout the investigation was primarily one of "observer as participant"

(Glesne, 2016, p. 64): during much of the investigation I was in the background, not directly participating in events as they unfolded. However, through interviews I had more of a participatory role as I built relationships with Jessie and Mario, and through my weekly observations we ended up having shared experiences in a virtual classroom that existed in isolation, separate from a physical school and other teachers and staff. These shared and sheltered experiences contributed to a participant observer stance. Furthermore, as Jessie worked her way through figuring out how to teach and mentor in this unique context, we engaged in Weekly Debriefs guided by my particular interests and ideas regarding mentoring. As a result of these interactions, it is possible that my presence influenced what the participants did and thought about during regular instructional time (Emerson et al., 2011). However, as Emerson et al. note, this “‘consequential’ presence...should not be seen as ‘contaminating’ what is observed and learned. Rather, these effects might provide the very source of that learning and observation” (2011, p. 4). Indeed, my research questions called upon me to attempt to uncover phenomena (in this case pedagogical tools) that the mentor herself may initially have been unaware of as even being specific mentoring tools; thus, my interactions, especially conversations around how to mentor someone in this unprecedented virtual space, may have constituted the kind of “participation” that Emerson et al. caution one not to avoid. Still, I tried to be consistently sensitive to and aware of how my presence was viewed by others.

The decision by Soundview’s school district to conduct all instruction in a virtual setting had a profound effect upon how I collected data during observations. Soundview’s school district prohibited any recording of online classes. Consequently, data collection during classroom observations consisted of taking detailed field notes that captured dialogue, student and teacher actions and facial expressions, descriptions of images that Jessie and Mario shared with students,

online tools they utilized, and screen shots of “chats” students and teachers engaged in. While “lurking” in the background and remaining essentially hidden from view during online observations is possible, and, according to Merriam & Tisdell (2016), a potentially acceptable observation technique, I chose to maintain my participant observer stance, with my camera on but my microphone muted during every classroom “visit.”

I also collected artifacts that related to observations, including lesson plans, links to student work and activities, and classroom schedules.

**Professional Development Observations.** For this study, I conducted 10 observations of CTR professional development sessions for its mentors, each session 4 hours long, for a total of 40 hours. My primary focus during these observations was any training around specific mentoring practices, and the ways in which Jessie participated in the sessions. Thus, when Jessie was moved into breakout groups, I attended those small groups as well. During these observations I also adhered to a participant observer stance, attending these Zoom sessions with my camera on and microphone off, though in the small groups the facilitator occasionally asked me to participate in brief ice-breaker check-ins, and Jessie always introduced me to those mentors who were not familiar with me.

At the request of CTR’s director, I did not record any sessions. Instead, I took copious field notes, attempting to capture dialogue, mentor expressions, and any relevant “chats.” Additionally, I collected many artifacts from these sessions, including each session’s slide deck, mentor contributions to the slides, and CTR mentoring documents distributed to mentors.

**Other Observations.** Occasionally I observed Jessie and Mario engaged in debriefing, planning sessions, and Sacred Meeting Time, observations that usually took place as a result of follow-up from a lesson just observed or a conversation with Jessie in which she suggested I join

Mario and her to listen as they discussed a lesson, his learning, or future plans. Again, I did not record these observations, all of which took place on the school district's Teams virtual platform. Instead, I took detailed notes and collected any related artifacts.

### **Data Analysis**

Analysis was an iterative, open-ended process of memo-writing and coding throughout the data collection process, primarily driven by three questions: did Jessie enact educative mentoring in-the-moment, if so, what did this look like, how did she think about mentoring in-the-moment, and how did her novice experience mentoring in-the-moment. Foregrounding these questions allowed me to look for patterns over time as Jessie and her novice gained experience with the remote classroom and mentoring and learning in an online format. As data accumulated, this ongoing iterative process helped me recognize when and how in-the-moment pedagogical tools were used, any emergent tensions in Jessie's mentoring activity system, and interplay between the experiences of Jessie and Mario, classroom culture, visions of teaching and learning, and appropriation of mentoring tools. An ongoing process, data analysis took place over two distinct phases: during data collection and after data collection was completed.

#### ***Data Analysis Phase 1: During Data Collection***

During this phase I collected data, wrote memos, wrote additional reflections, designed interviews, and prepared questions for Jessie's and my weekly debriefs. This period was also a time for me, as the researcher, to gain experience with the online format and learn what kind of data could and could not be collected in this kind of environment and how best to collect it. Interview data from both Jessie and Mario helped me understand key aspects of their mentoring activity system as framed by CHAT: their professional and personal histories, and their understandings and visions of teaching and learning, how they understood their roles in the

classroom, and what resources they felt helped them participate successfully in mentoring activities. Observation data helped answer my questions around whether Jessie mentored in-the-moment, how often, what it looked like, and how Mario participated in those moments. Following regular re-readings of detailed observation notes, I recorded general thoughts, interesting quotes, and any ideas regarding emerging themes in a running memo, which then became a source for further questions to pursue, both in subsequent observations and conversations with Jessie and Mario.

As data gathering progressed, my questions took a more specific turn, namely: why did Jessie choose certain moments in lessons to enact mentoring in-the-moment and not in other moments or lessons; why did she choose particular pedagogical tools to use for mentoring in-the-moment but not others; what learning did she think Mario benefited from as a result of these enactments; and what kind of participation did she expect from Mario? In analyzing Mario's experience, my questions centered on how he experienced these enactments of mentoring in-the-moment; how he understood the pedagogical tools; how his thinking around teaching and learning evolved over time; and how he understood his role in this mentoring activity system. These questions, developed through memo-writing, then helped to inform interview questions as well as guide my observation focus. As the observations became a source of shared experience between the mentor, novice, and me, data from them was used to help strategic elicitation of participant thinking around the mentoring experience in subsequent interviews and debriefs. Their responses in turn impacted the focus of my observations, creating an almost dialogic relationship between observations, interviews, and debriefs.

### ***Data Analysis Phase 2: After Data Collection***

This phase of analysis occurred after completion of all data collection and began with a data review.

**Close Rereading.** I began this phase of analysis with rereading interview and weekly debrief transcripts in chronological order, but soon found myself returning to observation notes as they related to the interview and debrief data. This evolved into a back-and-forth process of transcript reading and observation note reading. By the time I began this analysis phase, I already had a good idea of what pedagogical tools Jessie utilized to enact mentoring in-the-moment, and I had a general impression regarding when she used them and how Mario participated. I also knew that Jessie had repeatedly voiced concerns regarding her students' learning in this remote format as well as Mario's learning trajectory. Close rereading provided an opportunity to build upon these impressions by asking the following: were there any patterns in Jessie's choice of when to use these mentoring in-the-moment pedagogical tools? Were enactments similar or different? How much did Mario's participation in these moments change over time? Did Jessie's and Mario's thinking around mentoring in-the-moment enactments change over time? And prompted by my CHAT framework, were the frustrations that Jessie voiced over the course of the study tensions specific to this year of remote teaching and mentoring, or were they endemic to mentoring in general? A big questions that I realized I needed to answer through a close rereading was, 'What evidence is there that these enactments of in-the-moment mentoring are actually educative?' During this period of analysis, I continued to add to my running memo, recording ideas, questions, emerging themes, patterns, or puzzles, using the memo as a device to help develop my thinking and work through problems I encountered in making sense of the data.

**Open Coding.** Following the close rereading, I began assigning codes to the data that built upon the previous data analysis, beginning with interview and weekly debrief transcripts.

With CHAT emphasizing not just experiences and actions that unfold in an activity setting, but also the individuals' histories, beliefs, and perspectives of their roles within the system, I tried to capture data points that seemed to speak to how the mentor and novice understood and envisioned teaching, learning and mentoring, and how they experienced and thought about teaching and mentoring events throughout the study, particularly at times when Jessie utilized a mentoring tool during instruction. Then, in turning to observation data, I began sorting through episodes when pedagogical tools were used by Jessie and Mario, assigning them codes as well. The codes during this phase of analysis were numerous and general in nature, such as "Teacher Time Out, Jessie Initiated," "Teacher Time Out, Mario Initiated," "frustration," "work ethic," and "student thinking." I attempted to stay close to the data, not concerning myself too much with patterns, connections, or future analysis. Next, building on these open codes and memos, I moved to more focused coding.

**Focused Coding.** To begin the focused coding process, I first jotted codes generated through open coding on field notes and transcripts. Then, as I recognized overlap, overly general codes, and outliers, I experimented with refining the codes and re-categorizing data. When these codes began to settle in place, I experimented in clustering them and then naming the clusters. These names were both emic and etic in nature, as the categories both arose from the data itself and others arose from my own analysis (Merriam and Tisdell, 2016). For example, one code that emerged from the data itself was "righting the ship;" Jessie repeatedly used that phrase to describe her intent behind using one mentoring routine. A code more etic in nature was "dual role," a short phrase that I gave to mentor talk about her role as both teacher of children and teacher of an adult novice. As the focused coding began to lead towards identification of themes, I reviewed my theory and research questions to check that these developing categories were

responsive to the purpose of my research (Merriam & Tisdell, 2016), in this case, asking if the categories related to questions of how, when, where, and why Jessie used a particular pedagogical tool, and how she and Mario thought about it, and if any of the categories spoke to tensions in the activity system. In order to help illuminate patterns and check my developing analysis, I triangulated data from Jessie's and Mario's interviews, classroom and CTR professional development observations, and CTR artifacts.

Next, I worked on organizing the codes as they related to one another in order to evaluate whether the categories were exhaustive (inclusive of all pertinent data), mutually exclusive (units of data fit into one category only), sensitizing (names effectively capture the meaning of the phenomena), and conceptually congruent (categories match each other in level of abstraction) (Merriam & Tisdell, 2016). Towards this end, I further categorized my codes, creating "trees" which sorted categories in relation to one another. I also simultaneously shifted my data from one category to another as my codes developed and as I rearranged them in relation to one another. Throughout this process, I referred back to my original data in order to double-check my interpretation and make corrections accordingly. Sometimes these corrections led me to develop new understandings and I followed-up with a new set of codes or categories or eliminated existing ones. The patterns and themes identified through this process then prompted the development of assertions.

### **Limitations**

The nature of data collection for this study presented some limitations. As an observer of an online classroom and professional development sessions I was not in control of my access to the settings nor even what I wished to look at. I could not wander around the room and eavesdrop on students or small group discussions during PDs and I could not gather my own

impressions of Soundview Elementary. I had very little control over data collection technology, and while normally I would have extensively used recordings to capture mentoring activities, I had to rely on my own quick typing to capture events and dialog during observations. It is possible that these limitations meant that my understanding of the context in which Jessie and Mario worked suffered, and that my field notes erred on the side of overly focusing on recording dialogue and too little on noting the little bit of participant actions and reactions that could be viewed.

Finally, some might question to what extent enough could be learned from a single case to be able to draw general conclusions about the mentoring of new teachers, especially when the case is particularly unique, as I argue this one is. However, some researchers state that single-case studies are meant to generalize to theory, not to populations (Yin, 2016). As noted previously, the exploration of this study's research questions is intended to help deepen and extend understandings around educative mentoring. Furthermore, this study's extensive data collection from multiple sources, allowed for triangulation and a deep dive into "local processes, meanings, and contextual influences" (Maxwell, 2013, p. 99), a particular strength of the case study approach. Additionally, other researchers contend that it is most useful to think of case study research as providing *useful* findings, its value therefore being contingent on the extent to which the study provides enough data and thoughtful analysis for the reader to see the transferability of the case to other cases. As Ruddin states, "the [case study] researcher's liability is to afford sufficient contextual information to facilitate the reader's judgment as to whether a particular case can be generalized to a specific field of practice (p. 804)." I have made an attempt to do just that, and make my case in the discussion section of my findings.

#### **Chapter Four Summary**

In this chapter I explained how this case met three criteria (unique yet common, potentially revelatory) to support the selection of a single-case study design for this investigation, which I undertook from an interpretivist perspective. I provided details on the multi-faceted context, including the remote teaching and mentoring environment in which mentor and novice worked. I explained the selection process for the focal mentor and her novice, how I collected data through observations and interviews over the course of eight months, and how my positionality as the researcher evolved over time. I then shared the methods I used to analyze my data, both during data collection and after. The chapter concluded with a discussion of possible study limitations, including issues pertaining to participant selection, and limitations inherent in qualitative case study research. Next, in Chapter Five, I extend upon Chapter Four's introduction of the two primary study participants with biographies of Jessie, the mentor, and Mario, her novice.

## Chapter Five: Participant Biographies

In this section, I present biographies of Jessie and Mario, providing additional context that is both in keeping with the contextual richness called for in case study research as discussed above, and with framing this study as an activity system. According to CHAT, points of view, personal histories, and interests weave their way through every activity system and play an important role in both creating tensions in systems and how individuals respond to these tensions (Engstrom, 2001). Although Jessie is the subject in this mentoring activity system, because Mario's own life experiences and ways of thinking can also impact the way the system functions, his biography is also important to include. These narrative biographies do not attempt to deliver a comprehensive account of their lives, nor do they constitute study findings; instead, they deepen a contextual understanding of Jessie and Mario in order to better understand the functioning of their particular mentoring activity system. Later, the reader will find that my findings sections reference information that appears in these biographies. Both biographies draw upon information from two formal interviews with each participant and, in the case of Jessie, weekly debriefs with me and occasional email exchanges.

### Jessie

*One arm propped on her desk, Jessie leans forward toward the camera, her face filling the screen. "Hi everybody," she smiles. "Hi Kenny, hi Ahmad, hi Cassie. So nice to see you!" It's 8:30 on a Tuesday morning, and Jessie welcomes her fifth graders to class as either their faces or their initials pop up on the computer screen. Students respond with a "Hi, Ms. B!" or, in the chat thread on the right side of the screen, with a "Hello!" or smiley emoji. Jessie shares her screen. "OK, everyone, let's go to our homeroom page and look at our schedule for today." As she begins to read the day's schedule on the classroom's virtual whiteboard, a voice suddenly*

*pipes up: “Ms. B! I’m sorry I’m late! I couldn’t get on to Teams!” “That’s OK, sweetie,” Jessie says, “Glad you’re here,” and continues with reminders of who she needs to see during recess. Several students, one with his camera on, two invisible, raise their virtual “hands,” and verbally ask about Math Exit Tickets. Questions answered, Jessie next shows students how to activate Teams’ “Do Not Disturb” feature so that the students aren’t interrupted by notifications (mostly messages from friends outside their class) during school hours. “OK, everybody,” Jessie says, “now Mr. P and I want us all to look over our class charter and talk about how we can solve some problems, because we’re a pretty great class, but we still have problems that come up.” A class discussion ensues, some kids participating verbally, some through chat, Jessie moderating, Mario typing in responses to some of the kids’ chat contributions. It is October, and Jessie, Mario, and the kids are still figuring out their virtual space and how to be students, learners, and teachers within it.*

The fall of 2020 presented a startling new context in which to teach, an upheaval of how and where Jessie did her professional work of teaching children and mentoring a novice. It also marked the beginning of Jessie’s 22<sup>nd</sup> year teaching elementary school, as well as her 11<sup>th</sup> year mentoring a new teacher. A National Board Certified teacher, Jessie had been teaching in the same urban school district for all 22 years, and 14 years as a fifth grade teacher at Soundview Elementary. That fall was also her fifth year working as a mentor for CTR, after 6 years mentoring teacher candidates from a different university-based teacher education program. This biography provides details about Jessie’s dual roles as teacher and mentor, in order to shed light on her activities and thoughts in regards to her participation in these professional endeavors, as well as how she perceives her mission in taking on these roles.

### ***Jessie as Teacher***

Jessie's commitment to and love and enthusiasm for her school and students was palpable during numerous conversations and observations over the course of this study. She declared herself immensely lucky to teach at Soundview Elementary, describing it as a "hidden gem...kind of tucked away on Hilltop, not on a main street. You can have trouble finding it...and yet it's so popular in the neighborhood." She attributes the school's popularity to two things: a reputation for being a well-run, happy school, and gentrification in surrounding, previously industrial neighborhoods. Turnover among staff, she said, is low because "people do feel very lucky to be there...we genuinely love our colleagues!" Jessie continued, "I love going to Soundview because my closest friends are my colleagues." According to Jessie, strong leadership at Soundview where principals have worked hard to take care of their teachers, "[push] them to be their best...[and] get rid of teachers who were ready to move on," has made Soundview a special place to work and be a student. "I think parents and the community can see that Soundview works," said Jessie. "We get along as a staff, we push each other to be our best—and parents love sending their kids there." In fact, Jessie sends her son to Soundview where he is good friends with the principal's son, a friendship that led to her own increasing friendship with the principal.

Jessie also described Soundview's physical structure with its open-concept design as an important contributor to its desirability as a place to work and go to school. When she first arrived at Soundview, Jessie said, she was amazed by the open-concept design: "I just thought like, whoa, whoa... so easy to teach in this climate because the kids are really chill...it's like they grew up in this open classroom environment and they're really pretty cool." "If you had come to Soundview," she told me during one video call,

you would have seen, first of all, the open concept building... You walk into the building. You hear the kindergarten pod. You could just literally walk in four steps and see two classrooms in action. You walk a little further, you see all the first graders over here, all the second graders over here and the library. And then, you walk outside to get to the fifth grade that are in portables, but you would see everything and it is really-- it's pretty incredible.

Her commitment to Soundview has also led to her participation in various leadership roles over time. At Soundview, Jessie has served on both the PTA and the Building Leadership Team, an advisory committee for the principal. She also normally organized the fourth and fifth graders' annual fall trip to a YMCA camp, an undertaking she described as all-consuming but worth it as she witnessed what the students took away from the experience. She described how she felt quite a loss with that trip cancelled due to COVID-19.

In 2015, Jessie moved into a portable classroom, away from the open-concept space. According to her, this move resulted from growing population pressures on the school as nearby neighborhoods have gentrified, increasing demand for access to Soundview by middle class white families. Still, the student body remains very diverse (as described previously), and Jessie spoke fondly of the school's diverse community, of school gatherings ("where there's...food and we're celebrating...it's just incredible!), and throughout the study, with deep respect and concern for students' families who faced unemployment, financial, and health hardships as a result of the COVID-19 pandemic. For example, at one point during the year, Jessie went to bat for a student whose mother could no longer afford internet service; Jessie tracked down a free Wi-Fi hotspot to give the family, persisting with the hunt when school and district officials said there were none to be had.

Throughout the study, Jessie voiced her concerns about being able to meet the academic needs of each of her students through online instruction against a background of the pandemic's undercutting of economic and emotional security, vacillating between excitement for the challenge she'd been handed, despair over what she felt was being lost, optimism about unique opportunities for student learning, uncertainty about her own competence, and anger towards district officials whom she felt had failed at providing the necessary infrastructure and training to support student and teacher success. At times, Jessie enthusiastically approached pandemic teaching as a problem to be solved: kiddos (as Jessie fondly refers to students) having trouble understanding how to access materials or find their virtual way to various virtual "meetings?" Create a colorful, personalized, interactive graphic replica of a homeroom, with student materials accessed through clicks of a mouse! No document camera because they were all locked up in the school building, inaccessible to teachers? Jerry rig one with a cell phone! No field trips possible this year? Invite guests from around the world to join the class via videoconference: a city council member, two Swiss and South African representatives on the United Nations Committee on the Rights of the Child, a nationally recognized Rutgers-based COVID-19 scientist, a through-hiker on the Pacific Crest Trail!

However, this can-do attitude periodically evaporated when Jessie discovered a lack of academic progress among her students. In the one-on-one meetings with students this year's unique school schedule afforded, Jessie was sometimes discouraged by what students were not learning, especially compared with previous years. For example, after one-on-one sessions revealed that the majority of her students were deeply struggling with mixed fractions despite weeks of instruction, Jessie was despondent: most years Soundview recommends over half their students for accelerated math in middle school, she said, but this year she wasn't sure she would

have a single fifth grader to recommend. It was not unusual for Jessie to struggle with feelings of uncertainty around her teaching abilities in this remote context: “It’s really, really, really, really hard for me to teach writing in this format. I’m going to work on it, but it’s a challenge.”

And yet, despite these challenges, Jessie noted that,

...it’s kind of cool to have these one-on-ones in math and just sit down with the kids and chat about multiplying fractions, ....something I don’t [normally] get to do, right? And definitely something that I’m going to take with me post-pandemic..., having those math interviews or those math conversations or whatever you want to call them.

Thus, for Jessie, this move to online teaching presented her with valuable new opportunities and learning she could take forward regardless of the context. And despite her concerns with some academic progress during the year, she also recognized unique student learning that the virtual platform afforded:

...[You] have to think ‘wow,’ isn’t it amazing that little 10-year-old kids are able to send emails to their teacher? Like, that’s incredible! They can send emails to their teacher. They can come at a certain time for a one-on-one conversation. That’s huge. Ten-year-olds don’t even have a sense of time let alone..., you know? That’s huge that they’re getting that, that they realize they are really driving what they learn this year, that they could sit back and learn nothing and how boring that would be, so they’re choosing to do the right thing.

This enthusiasm for unanticipated learning afforded by the switch to remote learning was also tempered by her frustration with district support of students and teachers, frustration that really climaxed when district leaders suddenly directed teachers, in December, to administer the usual standardized test to assess student learning. Infuriated by the suddenness (and in her view

ill-conceived) nature of the decision to administer a standardized test in a pandemic-infused context, Jessie told her principal she would not test her students. Jessie described what she and other teachers said in a meeting with the principal: “Listen. I built up trust with my families. I’ve worked real hard for that. You know? And so, when I do something in the classroom, they know that it’s worth it because they trust me. And I just cannot give this test.” When I asked Jessie if she thought there was a good way for the district to assess student learning during this particular year, she responded, and in doing so, also made clear just how misguided she felt this standardized testing directive was:

Yes, of course there should be ways that we can track at least how things are going, but in order to answer that question, you would have needed to be given laptops that work. You would have needed to make sure that everyone had solid internet connections. You would have needed to make sure that families weren’t running out of stimulus money and were not going to be in fear of going hungry. Right? All of those things would have needed to be true... So, then let’s say in this perfect pandemic where everyone has their needs met, [the school district says,] ‘Of course the curriculum that we chose wasn’t meant to be an online curriculum. Of course it wasn’t. That would have been terrible if it was. Of course it was designed for in-person instruction. So, we’re going to be a month ahead of the game, and we’re going to be giving you tips and tricks on how to make this work. In all of the subject areas in every grade level.’ Right? And then, so we’re adding that to the perfect pandemic picture. Then, maybe we can talk about a standardized-ish assessment. But that’s a whole lot already that I mentioned that is not in our picture. They were given shitty laptops. You and I know both know that even in our little class of 28, 27, like laptops break, they’re kicked offline regularly. They’re kicked off Teams at least twice a

day. I'm kicked out of the meeting. Mario is kicked out, I mean all of these things. So it's just so many things. So, now at this point, given the shitty laptops, given the curriculum that doesn't quite fit, given all of these things, now I think the best thing you could do, the best thing is to have some sort of audit. So, as a school board, what do we want to make sure that is happening right now for our K-5 kiddos? What do we want? What are our priorities? Okay. So, we want to make sure that our kiddos feel like they're known by their teacher. So then, we're collecting survey data from kiddos, from parents, from teachers, and then we're kind of looking at that 360-degree picture of what's going on. That's what I think. In terms of academic learning, again, unless you have all the things in place, I don't think that you can really say what's happening in one school versus another right now.

Thus, observations of and conversations with Jessie over the course of this study showed her to be resourceful in attempting to provide a quality academic experience with learning growth for all students and eager to explore and recognize affordances of distance learning. Simultaneously, however, she chose to center in her teaching an awareness of the pandemic reality that her students, in this particular community, were experiencing, and adjusted expectations accordingly. In a discussion about whether cameras on or off was a measure of student engagement, Jessie described how her own son had his camera on during literacy lessons but at the same time flipped through Pokémon things. Then, she said,

[Are 'cameras on'] where we need to be focused? What we really need to be focused on is how is everyone doing right now? I mean, I just got a message, Sibyl, I just got a message that Tegan's mom, that she's positive. Positive for COVID. Their whole family is positive for COVID. And, that sucks. Do I care if Tegan's camera is on? No.

During literacy lessons, Jessie often called upon students to read aloud from the novel they were reading as a class. At times, after she called a name, the class was first met by silence, then a bit of paper-shuffling noise, then a voice saying, “Um, where are we?” Patiently, Jessie would restate their spot in the book, and wait for the student to find his place. Other times, when the student was really slow to respond, she would say, “That’s OK, Nico, I’ll come back to you later.” Later, Jessie told me that in a normal year she would never be so patient; she would be far more strict about students following along in the book and being ready to jump in reading.

While Jessie told me that she has a reputation for being a strict teacher, she also related how she makes consistent efforts with showing her students she loves them. She frequently peppered her language with endearments when speaking with students, calling them “sweetie,” for example, and telling them she loved them and valued their presence. This aspect of her teaching was terrifically important, Jessie said, because she wants her students to trust her, trust that everything she does is to support them because she believes in them, believes that each of them matters. “It’s such sacred relationship,” she said. “I mean, I’m a really big adult in their lives for year.”

### ***Jessie as Mentor***

Jessie entered the fall of 2020 a seasoned mentor, having previously mentored ten novice teachers, six through a different university’s traditional teacher education program, and the last four with CTR. Initially, Jessie “fell” into mentoring because Soundview at that time partnered with the traditional teacher education program, and all faculty were expected to take turns as mentors. Jessie grew disenchanted with this program, however, feeling that its 12 week-long student teaching component was not long enough to truly prepare a new teacher, making it a dissatisfying mentoring experience. “It wasn’t very rewarding,” she said, “... I did what I could

but I... certainly didn't get ANY professional development on mentoring... I was kind of picking up... what worked for me." Eventually, Jessie said, "I couldn't take [their students] anymore because I felt like it was just so rubber stamp." "...[Those] 12 weeks," she continued, "...it just wasn't enough time and I felt this pressure to make sure that they were ready to be a teacher... [It] just didn't work." She finally realized, she said, that preparing a teacher is really "*growing* a teacher," and that takes time. Thus, in 2016, when CTR reached out to Soundview looking for mentors, Jessie was intrigued by their residency model and emphasis on mentor training. Encouraged by a friend who was herself a graduate of CTR, Jessie volunteered to take on her first CTR novice. That first CTR novice became a valued colleague of hers at Soundview and at the time of this study, her third CTR novice was her son's second grade teacher at the school.

**Growing a Teacher.** In making her move to CTR, Jessie described how her thinking about "growing a new teacher" has evolved, particularly regarding the importance of developing a solid mentor-novice relationship in order to propel that growth. She said that over the years she has made an effort to find what she calls a "unique balance" with her novices, a

balance between having this amazing amount of confidence, *exuding* confidence in them so that they can grow in this environment where they have someone believing in them, and yet at the same time have a kind of relationship with them where I can just tell [them] that, you know, you really screwed up... I mean, you know, most of the time when you're mentoring, it's like, 'Oh, what...do you think happened in that lesson?' But then there are sometimes where you have to say, like, 'What the #%\* are you thinking,' and you have to have that relationship to be able to say that.

Before the 2020 school year began, Jessie invited Mario over for a socially distanced meal with her and her family, and in normal years, Jessie described how she prioritized taking her novices

out for a beer once a month and going for walks with them to get to know them outside of the work environment, laughing with them. During normal school years, spending early mornings together, having lunch with colleagues, hanging out together after school, and working collaboratively on projects for their students also contributed to relationship-building, said Jessie. Continual focus on relationship-building over time, Jessie said, because achieving a true understanding of a novice's needs and strengths by September or October is impossible, and because such an understanding is crucial in order to tailor learning for each individual novice. Likewise, participating in what is essentially a long-term, one-on-one learning environment, noted Jessie, makes mutual trust critical in the mentor-novice relationship.

Having a whole year to work with her novices within CTR's structure, Jessie believes, has been pivotal in providing her with opportunities to establish trusting mentor-novice relationships, relationships that allow her to build her novices' teacher identity and confidence and to do it authentically. For example, she described a time where one novice questioned his abilities at the end of fall quarter:

[Carl] said, 'I just don't feel like I can do this,' and it was our End-of-Quarter meeting, and I looked at him and I said, 'I've been around novice teachers in the fall, at the end of fall, and you're exactly where you need to be. And to be able to say that to him and mean it... 'It really meant a lot,'-- he said that to me later--'that meant everything to me that you said that because otherwise I felt like there was no way that I was ever going to get there.'

Knowing she had so much time with him, she said, had allowed her to give him that perspective at a critical juncture in his learning. Sometimes, Jessie said, allowing her novices opportunities to do things their way, asking if they need time to think first when talking about lessons, whether

talking through the lesson is their preference. But other times, she said, just flat out telling them what to do is the way to go. In October, Jessie told me, “I’ve told this to Mario straight up: ... ‘I’m going to be interrupting you, in your teaching. I’m going to be pointing out things, guess what? You can do the same thing to me,’ and just being very open about that relationship.” Jessie cited her own mentor as a model for creating this forthright yet nurturing kind of relationship, describing it as a “gift,” and in their case, a relationship so strong that her mentor continued to call her for years at the beginning of each school year to check on her and even attended her wedding.

Jessie also made clear that to sustain this mentor-novice relationship, she believed the novice has certain obligations as well, paramount among them what she referred to as a strong work ethic. “I know this about myself,” she said, “where if I have this perception of a lack of work ethic, I have a really hard time dealing with that.” She went on to describe an internal “volcanic eruption” she had one time with a challenging novice who told her,

‘I don’t really need to plan the literacy lesson, I mean, literacy-- I have that in the bag.’ And I looked at her and I said, ‘I’ve been teaching for 18 years. I don’t have literacy in the bag!’ [There is this] sense of urgency and sense of, like, oh, my God, this person’s going to teach and is going to be my colleague in [the district] and she needs to be ready. And, you know, I don’t want to have a colleague who says the words, prior to their first year teaching, ‘I have literacy in the bag.’

This novice quit by October, a casualty, Jessie believes, of a failed mentor-novice relationship and lack of hard work by the novice. Jessie recounted this episode in our first interview, but months later it came up again in one of our debriefs. This failure, she said, despite her continued

annoyance with the novice's approach to learning to teach, continued to nuzzle at her as she wondered what, if anything, she should have done differently.

Besides emphasizing the hard work involved in becoming a teacher, Jessie named helping novices find "joy" in teaching as a counter-balance in her mentoring practice. "I think it's so important for them to find joy in their teaching early on," she said, "Yes, it's going to be really difficult, but it should be joyous." For Jessie, that meant if a novice felt most comfortable in math but CTR at a particular time was focusing on novices' literacy teaching in their placements, it was important to "switch up the content area to find that joy." She also described modeling for her novice how to make room for students and teachers to share silly stories and laugh together, to enjoy each other's company. Observations of class time showed her recounting funny stories about her son and her kosher parents' horror when she ate a bologna and cheese sandwich when she was a child. Additionally, Jessie said, lighthearted banter between the mentor and novice could be great fun and strengthen relationships between everyone in the classroom, something I saw her encourage towards the beginning of the year when she wrote all zeros with smiley faces and called them "Mr. P zeros," with Mario smiling and students eagerly taking that up themselves.

**Why Mentor?** While Jessie named sharing and promoting the joy of teaching and enjoying the process of "growing a teacher" as two reasons why she had chosen to mentor for so many years, the main reason, she said, was that she loves the duality of simultaneously teaching students and teaching a novice, the additional intellectual component that that duality adds to her professional life. Mentoring, she told me, helps keep her teaching fresh. Besides how mentoring helps her think about her own teaching more deeply, she also felt working with novices helped her see things from different perspectives and that they taught her as well.

Jessie also attributed her longevity as a mentor to the learning opportunities provided by CTR. Initially coming from a mentoring experience where she received no training in how to do that work, she said she just gobbled up CTR's mentor professional development, thrilled to be learning specific mentoring moves and to be in an environment where she and her fellow mentors were treated like professionals. While some subsequent years the PD sessions felt repetitive ("There's nothing teachers hate more," Jessie said, "than sitting through the same PD more than once"), she loved those years when veteran CTR mentors were separated from the newbies in order to meet the needs of the different groups, and another year when returning mentors themselves led PD sessions focused on mentoring moves. Those sessions, she said, "felt great," because she could talk with others about mentoring experiences and how they all use particular mentoring tools.

Another source of intellectual stimulation that Jessie spoke about with great excitement was her work as the Science Methods instructor for all CTR novices. She cited her own mentor from her teacher preparation days as the inspiration for taking on this kind of involvement. "I always loved that [Barb] had her hands in higher ed as an adjunct and also [taught] at the same time. That was brilliant, and she was also mentoring, so she was in-the-know of current research on literacy, education, teaching..." Jessie explained. And since Jessie's special interest had been science, when CTR needed an instructor for Science Methods she asked for the job and was hired. The 2020-2021 year was her third year teaching this course for CTR.

On numerous occasions throughout the study, Jessie also described how she valued other supports besides professional development that CTR provided her in her mentoring role, especially CTR's coaches. As described earlier, CTR assigns a coach to each novice, and this coach provides additional assistance to both the mentor and novice and a link between the

program and the field experience classroom. Jessie described how stimulating it has been in the past when coaches have visited her classroom and actively engaged in lively discussions with the mentor and novice, during actual lessons, about math instruction. Additionally, throughout the study, she looked to Mario's coach regularly for input on how to manage challenges that arose, or how to best structure his Gradual Release cycles. Mario's coach also supported Jessie by repeating specific feedback to Mario and checking on whether he was following through on things he had been asked to do. Jessie and Mario's coach spoke frequently, exchanging observations and conferring with one another about the best way to guide his learning. Other times, when a particularly tricky question or concern arose, Jessie reached out to CTR's field placement director, and was consistently pleased with her responsiveness and respect for Jessie's work.

Thus, though part of Jessie's extended commitment to mentoring lies in the pleasure it gives her to guide a new teacher's growth and communicate the great joy she believes all teachers should experience in the classroom, it also stems from the intellectual opportunities mentoring provides her, and new ways to grow professionally in a supportive environment. And, the special support CTR has provided has also proved instrumental in her tenure as a mentor.

### **Mario**

Mario, the son of Mexican immigrants and the oldest of five siblings, did not always know he wanted to be a teacher, and in fact did not really contemplate going to college until his senior year of high school. Mario grew up in a small town in California's Central Valley where everyone attended the same elementary, middle, and high schools and where, according to Mario, the predominant culture was Mexican. According to Mario, he never struggled academically and in fact excelled "when [he] wanted to," particularly in math. He recalled loving

math since second grade, even teaching himself math from the textbook when he couldn't understand his junior year math teacher due to her strong accent. During his senior year of high school, Mario's sophomore math teacher asked if he would like a job as a peer tutor, and that year Mario embarked upon his teaching trajectory. "I had a lot of 'aha' moments," Mario said, when his peer students would "get" the math and be "successful with it." He continued, "It's not like I had a great record of that many students [being successful,] because not many go to after-school tutoring...[But] those that did come by, I was really helpful...and I kept getting that feeling of wanting to help other people understand mathematics specifically."

As a result of that experience, Mario continued to work as a tutor, first through two years of community college, then as part of work-study at the four-year university where he completed his bachelor's degree, majoring in Math. After graduation, the non-profit college preparatory institute for underserved children (K-12), where Mario tutored during college, hired him full-time. Two years later, he moved back home with his parents to save money to pay off student loans. Once home, he became assistant director in an after-school program at the local high school, and also began substitute teaching in K-12 classrooms. Eventually, however, Mario found himself repeatedly in the middle school, an experience that propelled him into teaching as a career. Mario explained:

I started getting more acquainted with [the middle schoolers], and...it just kind of sucked that I got to know these kids, but only briefly and I couldn't have my own class. And so that's where I started getting that feeling, like I really wish I had my own class of students that I can help out throughout the year. And they can get to know me, and I can get to know them, and it's just that feeling of 'we're in this together,' rather than just one day in and one day out.

Realizing he wanted to be a full-time teacher, Mario applied to CTR, excited to try living and working in CTR's home city and attracted to CTR's focus on equity and social justice in education.

As a result of his background in tutoring and substitute teaching, Mario said he entered CTR with his own "sort of teaching style," that he developed on his own. "There wasn't much of [observing] other teachers and you just imitate them," he said, "No, it's just you have their lesson plan and you follow it as best you can. And that was it. And I was always trying to just do my best of making sure the directions were clear and I was monitoring students... during independent work." Since beginning the program, Mario said he tried to be mindful that being the teacher of record would be very different from substitute teaching, and that different "styles" of guided, independent practice exist, different "frameworks" for engaging students. In other words, he recognized that despite his years tutoring and subbing, he had learning to do.

When asked how he learned best, he described note-taking, reading, and reflection. If something was on his mind, he said he might write that down, but usually his notes consisted of "'aha moments'... especially when it's a connection that I made in-the-moment... [Jotting it down] helps to kind of reinforce it." Mario also talked about making connections when he explained reading's role in his learning, emphasizing how he needs relatable examples to make sense of texts, to help him understand the relevance of the material. Furthermore, he said, writing reflections on reading were not helpful to him because he has a hard time reflecting. "[I've] always felt," Mario said,

like I've been more of a blank slate when it comes to certain things; it's not like I don't have emotions or anything like that, it's just-- I don't even remember things from my childhood...so reflections aren't something that I always do unless it's more recent.

Mario continued:

So, like you know those icebreakers, like what are your favorite five things and stuff like that? I can't do that, I can't even go to Subway and decide what I want for lunch, it takes forever, much less for me to decide what my favorite things are because I don't have those lists on the top of my head like a lot of people do, that's just not me... when it comes to me, myself, with introspection, it's always been something I'm not great at.

Mario clearly came to his CTR experience with prior experiences, understandings about teaching and learning, and his own particular learning style.

### **Chapter Five Summary**

This chapter presented biographies of Jessie and Mario in order to provide better understanding of who they are, their experiences related to teaching and learning, and in Jessie's case, mentoring. Additionally, these biographies provide glimpses into how Jessie and Mario think about teaching and learning and what drives them. These details, by offering additional contextual information, work towards informing any analysis of Jessie's mentoring as an activity system. Next, with Chapter Six, I begin the presentation of my findings, first with a look at what data revealed concerning contradictions within Jessie's mentoring activity system.

## **Chapter Six: Findings: Contradictions within the Mentoring Activity System**

Many aspects of everyday life could not escape upheaval stemming from the Covid 19 pandemic, and neither did Jessie's mentoring experience during the 2020-2021 school year. This study's observations and interviews showed a mentoring activity system profoundly rattled by the switch to remote teaching and mentoring. Jessie's usual professional practices were upended, and she was confronted with a series of questions about just how to teach and mentor when there was no actual classroom where students, teacher, and novice shared physical space, when usual materials and routines were no longer relevant, and when her curriculum and pedagogies so carefully curated over the course of many years did not necessarily translate meaningfully to an online context. Nevertheless, my study found Jessie determined to provide Mario with robust opportunities to learn, including during instructional time. This study showed her determination challenged, however, by the presence of two significant tensions in her mentoring activity system, neither one new to her or mentoring in general, but amplified by the shift to a remote teaching and mentoring context.

Cultural Historical Activity Theory asserts that every activity system possesses "inner contradictions" (p. 99) structural tensions which accrue over time (Engestrom, 2019). Yet, activity systems also are open systems, and if a system adopts a new element from the outside, historical tensions can be aggravated. These aggravated tensions can "generate disturbances and conflicts," according to Engestrom (2001), "but also innovative attempts to change the activity. (p. 137)." Because activity theory demands an exploration of tensions in order to identify and understand the actions of individuals within an activity system, I begin presentation of my findings with one chapter devoted to describing this case's emergent tensions.

First, I describe the historical tensions that the switch to remote learning aggravated in Jessie's mentoring activity system, and the role they played in how Jessie experienced and thought about her mentoring of Mario. In Parts II and III of my findings I build upon Part I by presenting my findings regarding how Jessie mediated these amplified tensions through utilization of two in-the-moment educative mentoring tools in order to achieve the object of educative mentoring in-the-moment. Two chapters comprise Parts II and III, each one dedicated to a particular mentoring tool. My findings lend themselves to this kind of structure because while both tools described were mediating devices, each emerged and played out differently over the course of the study, and thus required its own, focused analysis.

### **Tension 1: Dual Role**

Jessie's biography shows her to be a passionate teacher, determined to deliver top quality educational experiences to the students in her Title I school, highly dedicated to her Soundview community of families and fellow staff, and committed to her own continuous professional growth. Likewise, her years mentoring novices show similar dedication, in this case to "growing" new teachers and extending her own expertise as a teacher educator. Jessie's biography shows she fuels this professional life with a can-do attitude, an embrace of challenges as opportunities for creative problem-solving and knowledge growth. In Jessie's mind, her work as a teacher and her work as a mentor of novices is complementary, with each job fueling new understanding and skill development in the other. Soundview's and CTR's switch to remote teaching and mentoring at the time of this investigation, however, disrupted Jessie's *modus operandi* by shaking her confidence in her own capabilities as a teacher and mentor. Now, questions plagued her about how to provide the quality education she knew her students deserved, the quality learning experience that she prided herself on delivering as a mission-

driven teacher and member of the Soundview community. Simultaneously, she was haunted by questions about how, in this context, to nurture Mario's learning, ensure that she was growing a teacher who she and her colleagues in the district would be pleased to have in an adjacent classroom by the end of the program. While, according to Jessie, she normally comfortably embraced the dual role of teacher and mentor, this study found her renegotiating the balance between these two roles, frequently prioritizing her role as teacher of children over her role of teacher of novice.

From our first conversations in the fall through conversations in March, Jessie regularly described the disorientation of feeling like a brand-new teacher brought on by the remote context. In October, Jessie said, "I feel like I'm a first-year teacher. There are a lot of things that maybe I would have been able to do at this point in person that I'm not doing now." With most students attending class silently and with cameras off, serving individual students' needs was one area she despaired over. "It kills me to say [I don't know my students]," she said, "because it's October 6<sup>th</sup> right now and you should at least be able to say *something* about a kid." Another time Jessie described how she felt like she was back to square one in figuring out how to provide students with constructivist learning opportunities. "I'm getting better at it, but the kinds of questions that I was posing or the kinds of things that I was getting them to do in groups, it [has been] really just very open-and-shut kinds of problems. There hasn't been a ton of 'let's take this and see where it goes.'" She continued: "This year really did feel like the first year of teaching, I mean back to the old days of spending *hours* grading, *hours* planning." Even with all of her previous experience, she said, this new context presented heightened demands, particularly the demand to constantly reconfigure her lessons. To illustrate, she described a lesson-planning

scenario in which she thinks through how to translate a regular math lesson for remote teaching and learning:

‘Okay, so I’ve taught this lesson in person, so now how am I going to do it online? I don’t need to read the lesson, I know it... Okay, so how am I going to-- I don’t have dice. Should I look for online dice? Is that worth it? Oh, it’s not really worth the distraction...’  
[So] all those things [to deal with].

For Jessie, her previous experience, extensive though it was, did not prevent a daily challenge around converting lessons for the online context.

Similar to her new, inexpert feelings about teaching, Jessie wrestled with a lack of confidence around her mentoring throughout the year. “To be honest,” she said, “...it’s just like this constant fear I have that I normally don’t have; I’m normally pretty confident, you know, I’m a pretty good mentor, pretty good at my job. [But right now] I don’t know what the hell I’m doing.” Instead of having a solid plan for Mario’s professional development, instead of relying on mentoring routines that had served her well in the past, Jessie described “...just kind of going from day to day” instead of “thinking of the bigger picture.” For example, she said, if she had been asked in October of the previous year what her goals were for her novice for the next six weeks, she would have been able to list them. “But here,” she said, “it’s just like, OK, how did things go yesterday and what are things looking like for Monday. I mean, that’s kind of where I’m at.”

### ***Dual Role Tension and Relationship Building***

Feeling stretched thin by the multiple demands that figuring out how to teach and mentor in this remote context made upon her, Jessie described different ways she felt her mentoring suffered as a result. Building a solid relationship with Mario was one. Her biography makes clear

how important she considers the mentor-novice relationship and that over time she had worked to prioritize relationship-building in her mentoring practice. By January, Jessie felt she had made progress in building a relationship with Mario, but, she said, "...it's really easy to have days go by where I just kind of have too much going on [to make relationship efforts]. I just can't." Jessie continued, "If we were in person and this were a regular year," she said, "I think I would take on the challenge." But this was not a normal year, she explained, and she had especially felt overwhelmed at the beginning of the year with "...just so many things going on." Thus, Jessie acknowledged that relationship-building with her novice ended up as one casualty in her struggle to construct a functioning online classroom for her students.

### ***Dual Role Tension and Balancing Student and Novice Needs***

While Jessie's relationship-building efforts suffered from neglect as a result of the year's heightened dual role tensions, Jessie also made active decisions that gave student learning priority over Mario's learning, more so than usual, according to Jessie. As described in her biography, Jessie fundamentally thinks about mentoring as helping to "grow a teacher." Each novice, she believes, has different needs but all need time and support to develop their capacities to withstand a range of challenges and setbacks they will experience someday in their own classrooms. This kind of growth requires allowing novices the freedom to sometimes fail. This year, however, Jessie found herself more tentative in giving Mario this kind of freedom. For example, in October she said that in a regular year she normally "...will give [my novices] a lot of leeway..., but in this setting, I'm not as much because I'm so hyperaware or critical of what the kids are getting from us." In other words, that balance between her dual roles had tipped more towards prioritizing students over her novice.

Another way the tension between balancing student and novice needs became visible was in her decisions around grouping students in breakout rooms to work during class time. To support Mario's development in understanding students, their thinking, and how to move their learning forward, she acknowledged how helpful it would be if he were to spend time with students working in groups, hearing how they conversed, exchanged ideas, communicated their thought processes, and responded when prompted by certain teacher questions. Yet Jessie hesitated putting students into breakout groups, waiting until January to even begin trying that out. Jessie explained her hesitation: "The reason why I was reluctant to do [breakout groups] any earlier was that if I'm in a small group, I have no idea what's going on anywhere else, *none*... [The students] could be doing *anything*." Here, Jessie was referring to how once the teacher puts students into breakout rooms using the Teams platform, they disappear from view; the only way the teacher can see the groups is to join each one separately, one group at a time. By contrast, in a physical classroom, Jessie explained, "I'm here, my body is here, [the students] are here, the class is here. So, I'm seeing everything that's going on... I certainly don't have my back to the kid who threw the pencil last week... So, I can see everything that's happening." Clearly Jessie was uncomfortable with the trade-off that the remote context introduced: the choice between limiting class time to whole-class activities where she could be aware of and manage each student's participation, or putting students into small groups without the possibility of ensuring each student's productive engagement in the activity. That discomfort, in turn, led to her decision to forgo small group mentoring opportunities for much of the year.

By the beginning of February, Jessie had begun to put students into breakout rooms for some math and literacy activities, but keeping an eye on the groups took priority over visiting them with Mario and leading him through a learning experience. Normally Jessie and Mario each

would pop in and out of the various groups separately to check that students were on task and to monitor student participation. As a result, she acknowledged, Mario was missing out on the experience of being in a group with her, asking students questions to get them back on topic or to prompt them to think more deeply about a problem. “I just don’t feel like I could take the time to do that” during whole class time, Jessie explained. If they could have only one small group, with other students off in resource classes or doing asynchronous work, then she could imagine herself and Mario joining the group and using the experience to push Mario’s learning forward. Jessie described such a scenario and her concerns with enacting it in a remote environment. Working together in a small group, she said,

... [Mario and I could] talk about, ‘Gosh, what’s a different way we could ask that question,’ or ‘It’s clear Joe still doesn’t understand what I’m trying to teach and I’m not sure how to get there.’ We [could] work through it. But if it’s during [whole class time] it really does feel like I can only feel— (*long pause*) -- I don’t know, *safe* about doing something if I’m popping into each group for just a second to make sure that at least they’re all there... When I’m [in] breakout rooms...I don’t have the luxury of having conversations with them.

Thus, Jessie felt compelled in this online context to prioritize monitoring student participation in groups over inviting Mario into collaborative conversations around student thinking and understanding.

Every mentor must contend with the dual roles they inhabit and find a way to simultaneously support novice and student learning, a tension endemic to all mentoring activity systems, as noted in my literature review. While in previous years Jessie felt she had comfortably mediated that tension, confident in her ability to meet the needs of both her novice and her

students, the shift of Jessie's professional world to the remote format amplified this tension, particularly by infusing her mentoring activity system with anxiety over providing her students with a quality learning experience in such an unprecedented context. Nevertheless, Jessie persisted in seeking ways to provide Mario with educative mentoring-in-the-moment, and how she mediated this heightened dual tension in order to do so is described in Parts II and III of my findings.

### **Tension 2: Invisibility and Teacher Noticing**

Early on in this study, Jessie spoke about a puzzle she and Mario had to contend with within online teaching and mentoring: how to tell whether their mostly invisible students were engaged during lessons. With traditional, visible modes of student feedback missing (think of how much information student body language normally conveys, for example), Jessie and Mario experimented throughout the fall with various alternatives that could give them meaningful information about students during lessons. "We're constantly talking about how to engage kids," Jessie said, "replying to something in the chat..., writing something down in Jamboard, or turning in some sort of exit ticket... There's constantly more and more stuff that we're learning about in terms of ways to engage students [online]." While figuring out how to make online learning more interactive for all of her students was a big teaching challenge for Jessie, the mentoring challenge it involved was how to help Mario grow his reflective practice when in-the-moment, visible student reactions to lessons were limited to non-existent. Teaching, said Jessie in a fall debrief, is so much about "reading the room," and "the 'craft of teaching' is about modifying what you're doing based upon the feedback that you're constantly getting..." How, then, to help Mario with this important aspect of the "craft of teaching" when, in a remote space, the usual classroom "constant feedback" dwindled to a trickle? Furthermore, how to grow

Mario's reflective practice from being able to gauge simple student involvement, to inquiry into what that involvement revealed about student thinking and understanding?

In other words, how could Jessie, in this unique setting, help Mario grow his teacher noticing practice. While Sherin et al. (2011) describe the typical classroom "maelstrom," the "blooming, buzzing confusion of sensory data," as the primary challenge to teacher noticing, the remote teaching and mentoring context effectively muted that sensory data (p. 4). In this situation, what constituted the significant events teacher noticing calls for him to attend to? And with students mostly hidden from view, their voices mostly silent, what should he be interpreting in order to make sense of student experiences and subsequent instructional decisions grounded in that knowledge? Herein lay the second "aggravated" tension confronting Jessie as she attempted to purposefully guide Mario's learning. The normal tension around developing teacher noticing in an environment replete with sensory overload was now paradoxically compounded by a *lack* of sensory data.

Helping Mario develop teacher noticing skills, especially those that could support accurate appraisals of teaching and learning in this remote context, emerged early on as a challenge. Initially, Jessie attributed Mario's inaccurate appraisals partly to normal novice development and partly to "overconfidence" stemming from his previous substitute teaching experience. In early October, for example, Mario took the lead on teaching reading for one week, and at the end of the week, suggested he should move on to leading math, now that he had teaching reading "down." Jessie (echoing what she had told another novice, as recounted in Chapter 5) described her response to him: "I don't have this down, 21 years [and] I don't have this down!" Though she was a bit nonplussed by Mario's thinking, Jessie said that early in the year it can be somewhat normal for novices to misperceive their effectiveness. Then later in

October, Jessie described a post-lesson debriefing where she asked him what he thought he would do differently if he were to teach the lesson again. According to Jessie, he replied he couldn't think of anything, even with additional prompting from her. "I think that that's just a kind of a personality thing and hopefully he'll get more reflective as the year goes on," Jessie told me.

Yet, as the year progressed, Mario's struggle to engage in fruitful inquiry into student thinking and understanding continued. Jessie began thinking about how the online context amplified typical novice challenges for Mario, particularly how the lack of student visibility hindered his professional growth. In a normal school year, Jessie explained, "We always tell [novices], 'Well, take a look at how engaged [students] were. Looks like you had five kids asking to go to the bathroom in the first ten minutes.'" Student behavior, in other words, can be a key indicator of how they are experiencing a lesson. In this remote context, though, "They're not getting that [student feedback]," Jessie continued. "So, if he's only hearing himself teach, I guess it does make sense, then, that you'd be like, 'Yeah, I'm fine.'" Figuring out how to help Mario improve his understanding of how students experienced his lessons became an ongoing theme in Jessie's mentoring, so much so that she presented this mentoring challenge as a problem-of-practice for her colleagues to help her with in a CTR professional development session:

The problem I'm having is about student engagement. How do we know if they're engaged if videos are off? We don't really know if they're doing what we've asked them to do. So, how are we keeping track? I want [Mario] to keep track of how students are engaged, and I want him to use that as a benchmark to reflect upon his lesson, a measurement of how his lesson goes... [Right now] his benchmark is 'I got through what I wanted to get through and nobody interrupted me.'

As months went by, Mario continued to struggle in developing such a “benchmark” in a classroom context where student actions and reactions were largely hidden from view. In January, Jessie described a recent math lesson Mario had taught and their debriefing conversation. In the lesson debrief, Jessie said, Mario began by saying how pleased he was with student engagement. Jessie, however, pointed out to him that he’d actually “had a thirty-minute conversation with two Asian boys during a math lesson.” She described what she then said next to Mario:

How do you think other kids in that [lesson] would have been affected?... When we’re asking for feedback [from kids], when we’re asking kids questions and we’re [trying to get] them interested in the questions [and] we’re not getting responses or we’re only getting responses from a couple of kids, then we know we need to ask the question differently, and so that’s what was happening [in your lesson].

Later on, Jessie said, Mario told her he’d been unaware that he’d left out the majority of kids in the class, a response that frustrated Jessie five months into his student teaching, but that highlighted the absence of student cues which in a normal classroom could have caught his attention and perhaps informed his thinking. Absent those cues, the above quote shows Jessie asking Mario to basically *imagine* what students were doing during the lesson. One could imagine, for example, students playing Pokémon during the lesson, leaving their computers to go to the bathroom or get something to eat, bugging their sibling sitting next to them doing their own online schoolwork. For a novice teacher in a regular classroom, one could also imagine how quickly behaviors could force him to notice other students in the room.

Even when a student was visible to the teachers, however, Mario continued to struggle to interpret his/her thinking, again causing Jessie to wonder what else besides a lack of visual cues

was contributing to this difficulty. For example, during one of their routine one-on-ones with students in January, where students worked their way through successively more difficult math problems while explaining their thinking, Mario had trouble responding when Jessie asked what he had noticed. During this observation, each student in the one-on-one had his/her camera on, showed his/her work, and talked through his/her problem-solving. Each student struggled at a different point with the math problems and each explained his/her thinking differently. Yet, when asked what he noticed about the students' efforts, Mario's response was limited to which problems students got right or wrong and even then he was a bit mixed up about their results. Jessie then led him through her thinking regarding the students' work, what she learned by watching and listening to them, and what she proposed to do next to support their learning.

This example of Mario's continuing difficulty with teacher noticing, even in a situation where students were visible and interacting with him, left Jessie perplexed. "I just don't know," she told me in a debrief after this observation, "I don't know what [Mario's] doing... I have no idea. No idea what he's looking at on the other side of the screen." Whereas in a normal classroom, she said, she could be shoulder to shoulder with her novice and almost physically guide his observations of students, their work, and her instruction, this remote context left her feeling unsure of both what he was doing and how to focus him. Sure, she said, she could tell him to pay attention more, not let his mind wander if that was what was going on, but that felt inadequate to her. Thus, not only did the remote context contribute to Mario's difficulty in growing his understanding of *student* thinking, but it also contributed to Jessie's difficulty in fully understanding *Mario's* thinking.

## **Chapter Six Summary**

This chapter began by describing the disruption to Jessie's mentoring activity system caused by the switch from in-person teaching and mentoring to a fully remote context. Then, I presented two historical tensions that this disturbance to her activity system amplified. One, she experienced increased tension between her dual roles as a teacher and a mentor, causing a shift in her normal mentoring practices. Whereas Jessie normally emphasized relationship-building with her novices, in this context she felt she neglected that aspect of her practice. In addition, she found herself renegotiating the balance between meeting her students' and novice' needs, frequently prioritizing her students and thereby reducing some opportunities for in-the-moment collaborative conversations with Mario around student thinking and understanding. Two, the virtual classroom paradoxically aggravated tensions endemic to the cultivation of teacher noticing by augmenting invisibility and silence and limiting informative sensory data. Additionally, the remote context disabled the role physical proximity normally plays in teaching and mentoring, contributing not just to Mario's difficulties in understanding student thinking, but also curtailing Jessie's understanding of Mario's thinking. In the next two chapters, I describe how Jessie mediated these significant tensions, focusing on her use of two different in-the-moment mentoring tools to support Mario's learning during instructional time.

## **Chapter Seven: Findings: Interruptions as an Educative Mentoring-in-the-Moment Mediating Tool**

This study's observations showed Jessie regularly and with frequency interrupting instruction to provide Mario with learning opportunities during instructional time, revealing the use of interruptions as a practical pedagogical mentoring tool during instructional time. In fact, out of twenty-three classroom observations, I documented seventeen lessons with notable<sup>9</sup> instances of interruption, and many of those lessons often contained multiple interruptions. The character of these interruptions varied, however, and analysis of my data reveals four categories of interruptions, each of which served specific purposes in Jessie's mentoring activity system, including helping her respond to the system's emergent tensions as described in Chapter Six. Observations and interviews showed that both Jessie and Mario valued the learning afforded by the use of interruptions, particularly in the ways in which this tool leveraged in-the-moment experiences to enhance Mario's professional growth. Full appropriation of interruptions as a pedagogical tool, however, was not without challenges, principally due to how Mario both participated and did not participate in the routine use of the tool.

Initially, Jessie had learned to use interruptions to mediate her mentoring during instructional time through CTR professional development sessions three years earlier when mentors were taught a routine called Teacher Time Out. This routine, in which interruption plays a key role, was one of three she had learned through CTR professional development and she had purportedly embraced it ever since as a regular part of her mentoring practice. I begin this chapter by explaining the Teacher Time Out mentoring routine, including its background and

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<sup>9</sup> I did not document interruptions that were unrelated to mentoring, for example those that occurred because of technological problems

how it had previously been taught to CTR mentors, including Jessie.<sup>10</sup> Next, I present how Jessie utilized interruptions in ways consistent with the TTO protocol. Then, I show how she deviated from the protocol, adapting the use of interruptions to mediate the mentoring tensions identified in the previous chapter. I also present what Jessie and Mario valued in the different uses of interruption during instructional time, as well as challenges to full appropriation of interruptions as a mentoring pedagogical tool in this activity system.

### **Mentoring Routines/Teacher Time Out**

In previous years with CTR, Jessie received training in a series of mentoring routines, each of which was intended to give mentors opportunities to regularly engage in five important mentoring practices:

1. Making teaching visible to novices
2. Making thinking visible to mentors
3. Providing scaffolded opportunities for novices to practice teaching
4. Supporting novices to analyze the effect of their teaching on students
5. Supporting novices to refine their teaching

Teacher Time Out, one of these specific mentoring routines, was originally conceived as an organizational routine (as explained in Chapter Three) enacted by a team of teachers, teacher educators, and administrators to help improve mathematics instruction (Gibbons, et al., 2017). As part of school-wide professional development, teachers and administrators engaged with mathematical instruction as it unfolded in regular classrooms, "...pausing regularly within the lesson to think aloud, share decision-making, and/or determine where to steer instruction." (Gibbons, et al., 2017, p. 28). Such pauses allowed the team to collectively inquire into student

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<sup>10</sup> CTR did not teach or review the TTO routine in its mentor professional development sessions during the year of this study

thinking, consider possible instructional responses, make a decision, and move the lesson forward.

Adapted for use in a mentoring setting, a Teacher Time Out (TTO) uses interruptions to engage novices in in-the-moment inquiry into instruction. As presented by CTR, a TTO can take place at any time during instruction, whether in whole class, small group, or one-one-one settings.

Essentially, in a Teacher Time Out, either the mentor or the novice calls verbally or with a hand signal for a “time out” during instruction in order to “puzzle aloud over what they are hearing from students and what they might try next (see the Teacher Time Out Primer<sup>11</sup>, Appendix C).”

As described earlier in Chapter Three, a typical lesson can call upon the teacher to make dozens of decisions, each of which can lead to different outcomes. The TTO pause in instruction, according to CTR’s “Teacher Time Out Primer,” allows for in-the-moment support in how to make those decisions, help for beginners in deciding “*which move in their repertoire* to use in a given moment to advance students’ ideas (Appendix C, emphasis in original).” The Primer states,

By pausing here and there to share thoughts with the novice, to ask what a novice is hearing from students, to ask for their reactions to what is being shown on the board and so forth, mentors are not only making their expert thinking and wondering visible, but they are giving the novice permission to puzzle aloud during their teaching as well (Appendix C).

For example, a mentor might call for a Teacher Time Out while teaching a reading lesson and explain to the novice why she is cold-calling students to read rather than asking for volunteers. Or, a novice, while teaching a math lesson, might call a Teacher Time Out to ask the mentor what question he should next ask to understand students’ problem solving. Teacher Time Outs

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<sup>11</sup> A handout provided to all CTR mentors, including Jessie, during professional development sessions in 2020

provide opportunities for *either* the mentor or novice to ask questions, make suggestions, explain their own thinking, call attention to something happening, and problem-solve, all *in-the-moment*. Thus, the Teacher Time Out routine functions not just as a means for the mentor to guide and instruct the novice, but also as a pedagogical tool to invite the novice to fully participate in in-the-moment inquiry, to stimulate his own initiative in making sense of student actions and thinking during instruction. In this way, the characteristics and purpose of the Teacher Time Out routine solidly align it with the concept of educative, in-the-moment mentoring.

### **Interruptions: Jessie**

*It is a Thursday morning in November, and Mario leads students through a reading lesson. Mario and Jessie and three students are visible during this online lesson, the other twenty-four children's presence represented by initials on the screen. Mario has been calling on students to read Tuck Everlasting aloud, and so far, communicating through chat and some brief verbal exchanges, students seem interested and even excited by the story. Mario randomly calls on the next student to read:*

*Mario: Jasmine, can you continue?*

*Pause*

*Jasmine: What page?*

*Mario: Page 45, Jasmine.*

*Jasmine: I can't find it.*

*Mario: Can someone help Jasmine find her spot?*

*Another student explains where they are in the story, and Jasmine begins to read. After one paragraph, Mario asks another student to continue:*

*Mario: For the last section, can I have Crystal?*

*Pause*

*Mario: Crystal?*

*Crystal: Which page are we on?*

*Jessie: Mr. P., I'm going to have a Teacher Time Out: we don't want to lose the momentum of the story, so we would continue and maybe try that student later.*

*Mario: Good advice.*

*Mario reads the last section.*

This example from a reading lesson in November shows Jessie closely adhering to the Teacher Time Out protocol as described in the CTR primer. With Mario lead teaching, she initiated the TTO and did so verbally, naming the interruption. She then gave Mario a quick suggestion and explanation of her thinking. Mario responded, implemented the suggestion, and the lesson moved forward. More lessons in the fall also showed Jessie closely following the protocol. During a November writing lesson led by Mario, Jessie similarly enacted the TTO routine. “Mr. P.,” Jessie interrupted Mario, “Teacher Time Out: I wonder if the students heard all of these directions, that can be a lot. So, I’m wondering if anyone here can say what we are going to do the first twenty minutes. That’s good feedback for us...” Mario then followed her prompt by asking students to repeat directions, and the lesson continued. Again, in this TTO, Jessie named the interruption, suggested an action that focused on student understanding, briefly explained her thinking, and Mario followed up.

Over the course of this study, observations and interviews showed that Jessie fully embraced using interruptions as envisioned in the Teacher Time Out routine as a mentoring pedagogical tool, interrupting not just in many lessons, but even multiple times within a single lesson. Analysis of all interruptions, however, also showed that Jessie’s use of interruptions

deviated from CTR's exact description of the TTO routine; Jessie adapted the routine to meet a range of both novice and student needs. Furthermore, while Jessie freely and frequently utilized interruption as a mentoring tool, observations and interviews revealed several challenges to its use in enacting educative mentoring, including lesser appropriation by her novice, both in his interpretation of the role of interruptions in his learning and in his own initiation of them. Below, I relate examples of Jessie's use of interruptions, and how their form served different purposes in her mentoring of Mario. I also explain Jessie's thinking around these varied uses, particularly in relation to their role in helping her navigate the mentoring system's two primary tensions: Jessie's dual role as teacher and mentor, and the development of Mario's professional noticing in a setting characterized by student invisibility. I also describe challenges to the use of interruptions as an educative mentoring device and in what ways Mario's interpretation of and engagement with the tool hindered its full appropriation in Jessie's mentoring activity system.

### ***Interruption Purpose 1: Making Thinking Visible***

The Coastal Teacher Residency's Teacher Time Out protocol names "making thinking visible," as one of the primary goals of interrupting instruction, and while not all of Jessie's and Mario's interruptions included this objective, many did. Often when interrupting a lesson, Jessie would explain why she was intervening, providing an educative aspect to the move. In the following example, Jessie interrupted Mario during a math lesson to clarify his instruction for students and explain her thinking:

Mario: We went over this earlier: when you write a check, as Ned was telling us, you make a payment. So, if you are using a check, does the bank make money or lose money?

Student: Both.

Jessie (to Mario): Time out for a minute: I want you to think about your wording and perspective. I'm going to use my language, [instead of] 'when I take money out, the bank loses money, when I put money in [the bank makes money].'

Jessie (to students): When I put money in, I *deposit* it. Say it.

Students: Deposit.

Jessie: *Withdrawal* is taking money out—so don't worry about the bank having money-- [this math problem] is about *you* having money. Back to you, Mr. P.

Here, Jessie called Mario's attention to student confusion and how his wording contributed to it, then modeled more accurate and clear language to convey his ideas to the students.

Sometimes Jessie interrupted instruction to first model a move and then explain her thinking after. This kind of interruption arose in a Mario-led math lesson on decimals and estimations in early February. After taking students through some practice estimations, Jessie intervened:

Jessie: Mr. P., I'm going to make a teacher move and I want you to think about what I'm doing. OK, guys, I added these numbers and I got the answer of 197.54. Is there any chance I got it right? (*The original estimation students had just worked with was 19*)

Jamal, in chat: No.

Jessie: So, Jamal says 'no.' Jasmine, what do you think?

Jasmine, in chat: No.

Jessie: So, Mr. P., you were talking about estimations, but I'm talking about the actual answer. How do you [students] know that, even without working on the problem, that I didn't get it right?

Kaylee: Because estimation is supposed to be close to the answer, so there's no way!

Jessie: The estimation is supposed to be somewhere around 19, so there is *no way* that could be right! Does that make sense? Mr. P., my purpose there was to make sure there is a clear understanding of *why* we estimate.

Mario: Great. (*Continues with lesson*)

This time, Jessie focused Mario's attention, illuminated the intention behind the move (checking on student understanding), and then passed instruction back to him.

Jessie also made her thinking visible to Mario by initiating interruptions during her own lead teaching. In one reading lesson, for example, Jessie asked students to make a prediction about what a character in Tuck Everlasting was going to do:

Jessie: So, he knows there's a constable behind him; what's he going to do when he gets to the house? Think time! (*Pause*) OK, now I want you to type it into chat.

*Jessie types the question into chat for everyone to see.*

Jessie: Type [your answer] in, but don't send it yet. Everyone should be typing it in now. What's he going to do when he gets to the house? -- Mr. P., I'm thinking about wait time right now, how much time it would take to think and then type. -- OK, ready, press, send!

In this quick interruption, Jessie makes clear the reasoning behind her pacing, especially when neither she nor Mario can actually see students working in order to know when most have finished recording their responses.

Mario also described how Jessie used interruptions to explain "...the reason why she's doing something in-the-moment." For example, he said,

When we're doing math and the kids are doing their problem on their own, she says that at this time the teacher can be doing the problem on their own, and screen-share so that maybe the kids who were stuck can get unstuck by seeing what the teacher is doing

differently. So you're not just sitting there waiting for them to finish—you're doing your own part as well.

He appreciated this kind of interruption, Mario said, because

it's helpful to reinforce these kinds of things. Some [moves] I've considered before because we've talked about them. So she's pointing them out in the middle of a lesson. Others, they're just not something I've thought about, like why she intentionally did it that way. So yeah, they're helpful.

Thus, interruption as a pedagogical tool helped make thinking visible, leveraging instructional time to both reinforce previous learning and provide the novice with a window into his mentor's decision-making.

### ***Interruption Purpose 2: Capturing a Moment***

Sometimes Jessie used interruptions to capture interesting moments of learning for her novice about something unexpected that occurred during instruction, moments that might be forgotten later in the day when lesson debriefs occur. Once during a reading lesson she was teaching, Jessie suddenly veered from the lesson plan, telling students a story, but then paused. “Mr. P.,” she said, “one thing you might want to know is I go off on tangents, I like to tell stories, but they all come back to what we're talking about.” Indeed, her story did circle back to a point she was making, and the pause in instruction helped Mario notice her move and the intentionality behind it. In a Tuck Everlasting lesson, Jessie used an interruption to call attention to another sudden, unplanned move she was making. Reading the story aloud, Jessie suddenly paused, and then posed a question to students:

Jessie: Why is Winnie rocking in the chair? What does that have to do with what we've been talking about every day? *(Pause, then Jessie types 'self-care!' in the chat)*

Crystal (in chat): oh

Mario (in chat): maybe that's her 'sacred space?'

Ingrid (in chat): Because it makes her happy.

Jessie: Mr. P., Teacher Time Out. (*Jessie talks about making connections both within a content area and across content areas*). Sometimes we can see this coming and can plan for it, guide students to discover the connections, but best of all is when students say it themselves. (*Calls on next student to read*).

In this example, Jessie took advantage of an unplanned event in the lesson to call Mario's attention to the significance of making connections for and with students. Mario also noted this type of interruption. "Jessie has used [interruptions]," he said, "to point things out to me in particular that she wants me to take note of, [that] don't happen all the time, maybe once a week or so..." In other words, interruptions functioned as a tool to help capture educative moments in lessons that otherwise could easily be overlooked or forgotten were they not addressed immediately.

### ***Interruption Purpose 3: Collaborative Decision-Making***

Still other times Jessie used interruptions to include Mario in in-the-moment decision-making. During a lesson on the Universal Declaration of Human Rights, for example, Jessie paused instruction to consult with him:

Jessie (to the class): OK, now we're going to write about the background of the UDHR.

Jessie (to Mario): Mr. P., I'm trying to think of different ways to get kids to engage with the text. What do you think would be a good way? I wish Jamboard were working.

Mario: Yes, I think give them their own documents so that they can read at their own pace.

Jessie: OK. (*Jessie takes up this suggestion and continues with the lesson*)

Besides making her thinking visible for Mario during this pause, Jessie also made clear that a variety of options existed for them to choose from. Then, by taking up his suggestion, she legitimized it, supporting both confidence-building and the idea that often there can be multiple, valid avenues to take when teachers must make a decision. Jessie identified this collaborative aspect afforded by interruptions as one she particularly valued "...because it's good modeling" for both her students and her novices. "Thankfully," she explained,

in Title I schools we do have other people in the classroom, all the time... There's AmeriCorps members in classrooms in addition to instructional assistance from Sped... So there are schools in [our district] that are just overflowing with adults in the classroom and it's important for adults, I believe, to model how they work together and to make that really public.

Furthermore, she said, "...it's just so important to model for kids that we make mistakes all the time," and how working together with others can help problem-solve. For her novices, she wanted them to experience how exciting this kind of collaboration can be, how "...super fun professionally [it is] to engage [with colleagues] in that way." Using interruptions to facilitate collaborative inquiry into teacher decision-making, in fact, is very much aligned with how Gibbons et al. (2017) originally envisioned their purpose within the Teacher Time Out routine.

Jessie even directed this collaborative type of interruption at *students* one day when she was frustrated by a lack of student attention and participation:

Jessie: Teacher Time Out. I'm feeling a bit frustrated because I'm not getting a lot of interaction right now. Students, do you know how I could get more interaction?

*Students suggest asking everyone to turn cameras on or raise hands.*

Jessie: I think I'm going to cold call students when I ask questions now.

*Jessie calls on a student who replies immediately and correctly. The lesson continues.*

In this case, Jessie didn't take up the students' ideas, but it did seem she got her point across.

***Interruption Purpose 4: "Righting the Ship"***

On many occasions throughout the year, Jessie's use of interruptions was more directive than inquiry focused, often with minimal explanations of her thinking. For example, in a mid-October reading lesson led by Mario, Jessie interrupted six times to provide either direct instruction or an intervention. The first interruption unfolded as follows: at one point in the lesson Mario asked students to type into chat anything they remembered from the previous day's reading. Jessie intervened, saying, "I am reminding everyone that this is a way that we know that you're learning. Every single student needs to respond." Later, when Mario instructed students to "start making notes on the reading pages, annotate," Jessie again interrupted:

Jessie: I am wondering if you can give us the first example? An example of a complete note that would count as one of the five [required notes]?

Mario: Great idea. *(Mario shows students an example)*

Jessie: Oh, so Mr. P., maybe we should write out 'The heading tells us women were very important in the American Revolution?'

Mario: Oh, I like that. *(Mario writes the phrase so that all students can see)*

Jessie: Awesome!

Mario: That's an example: annotation, star, underline. You have three to five minutes and then we'll share as a class. Take time to annotate.

Jessie: I'm wondering if anyone can tell us what we're supposed to be doing now?

*Students raise virtual hands, and Jessie calls on a student who then restates instructions; Jessie elaborates a bit*

Jessie: You have five minutes and I'm setting a timer. We could call on any person [to share]!

*Mario continues leading the lesson.*

In this instance, Jessie both suggested actions for Mario to take (give an example, write out a phrase), and she also intervened, briefly taking over the lesson, talking directly to students. She did not, though, explain the thinking behind her intervention.

This type of interruption, characterized by direct instruction and interventions by Jessie, proved common throughout the school year. Frequently these interruptions instructed Mario to do something specific in-the-moment or briefly modeled how to do it, often in order to clarify instructions for students, as shown in the above examples. Other times, Jessie intervened in order to correct Mario. One time, for example, when Mario “encouraged” students to engage in an activity, Jessie inserted herself, saying, “I’m going to say this differently: you *must* write down your problem and answer now.” Another time, when students were stumbling over a word problem Mario was trying to lead them through, and Mario was confused about students’ confusion, Jessie intervened by asking him to erase part of his diagram and reframe his question for the students so that it related better to the visual. In yet another lesson, Jessie used an interruption to correct Mario when he told students to review their writing because “...it is not my job to edit it for you.” Immediately Jessie responded, “OK, a bit of a Teacher Time Out: we are going to look at students’ work to give them feedback, right, Mr. P.?”

Mario also named interruptions as opportunities for Jessie to correct or clarify his instruction. One example he cited as being a helpful correction was when he had called upon an

ELL student to read aloud a dialogue in Tuck Everlasting in which the characters spoke with a “Southern drawl.” When the student struggled, Mario said, Jessie interrupted to explain why that student was having such trouble and how for read-alouds, it is important to consider the match between what they are reading and a student’s English language skills. “Yeah,” Mario told me, “I didn’t really consider that going into that dialogue.” Mario also valued Jessie’s help in clarifying activity instructions. He said sometimes he would wonder if students understood directions for an activity (especially since he couldn’t see most of them), whether he had phrased “...the question properly or [if I could say] something differently.” Then, Mario said, “...that’s where [Jessie] can chime in... [She’s] helped me out with not only saying it differently, but asking students, ‘did you understand the question that was being asked,’ or ‘can you repeat what the directions are,’ so having students [use] their voice, rather than [just] the teacher.” Sometimes, though, Mario said, these interruptions can

...sting a little, because it’s like you know you did something wrong...but these [interruptions] were OK, it’s just not something to take personally and so I always remind myself, it’s just a mistake, an error. It’s an error that I need to learn from and take the positive away from it and leave the negative. And so the Teacher Time Outs are great, you just shake them off afterwards and learn from it.

Thus, Mario found value in Jessie’s use of interruptions to correct or clarify his instruction, and his above descriptions show concrete learning that developed in relation to those episodes. Still, he associated these kinds of interruptions with “mistakes” and “errors,” rather than with opportunities for collaborative inquiry.

Jessie described these sorts of interruptions as “righting the ship:” a quick interaction that can have a noticeable impact on the lesson as it played out. Helping the novice clarify

instructions or questions posed to students is one example of a quick “righting of the ship,” so that a lesson can advance with less thrash. Perhaps, Jessie said, they might review the Teacher Time Out later, but maybe not. According to Jessie, it is most important to think about how an interruption at a particular moment can change the course of the lesson. “The point of in-the-moment [mentoring],” she said, “is that his instruction is going to improve in that moment and kids are going to get more out of the lesson in that moment.” Sometimes, she said, deciding in what moment to use an interruption is an easy call, but other times more tricky. For example, if her novices say something that is simply factually inaccurate in a math or science lesson, Jessie said, she interrupts them and corrects the inaccuracy, with no hesitation. Other times, though, whether the interruption is worth the disruption can be more murky. To explain, Jessie pointed to a science lesson led by Mario that I had observed. He had struggled in the lesson and Jessie had used a number of interruptions to try to help him, but in the end, the experience left her feeling conflicted. She really wanted him to gain confidence in teaching science, she said, and she realized that too many interruptions can impede confidence-building. On the other hand, she said, science should be “rigorous, and fun, and worthwhile... [and] I want to make sure that what [students] are getting is what they need to be getting.” That pull between simultaneously providing both Mario and her “kiddos” with what they needed, she said, could just be really “hard,” and left her reflecting upon the proper balance between serving everyone in her classroom and the role of interruptions in that quest. Interruptions, in other words, could help Jessie in negotiating the amplified dual role tensions that she faced, but there were still opportunity costs.

Mario also mentioned how multiple corrective or clarifying interruptions could be difficult. He described a Social Studies lesson about homelessness and where he purposely used

the words “sweeps” and “clean-ups” interchangeably when talking about homeless encampments with the intention of building students towards an understanding of the difference between the two terms. Jessie intervened multiple times, he said, to correct him and clarify that the terms have different meaning. “I’m OK with what she was saying,” Mario said, “because I understood that it probably had not been clear that I was going to address that a minute or two later.” But, he said, “It sort of felt like she was kind of cutting me off repeatedly,” he said, and that was a bit irritating. Thus, for Mario, repeated corrective or clarifying interruptions in a lesson could be frustrating when he felt Jessie did not recognize or understand his thinking.

### **Mario-Initiated Interruptions**

Not only did Jessie use interruptions to support in-the-moment decision-making; so did Mario. Although Mario much less frequently initiated interruptions, and even then only began calling for them somewhat regularly in the second half of the year, the majority of time he did so was to ask Jessie for help in making a decision at that moment in time. My observations also showed no instances where Mario asked for an interruption while Jessie led instruction (as suggested within CTR’s Teacher Time Out protocol). Still, Mario’s interruptions, even when limited to his own lead teaching, did not just provide him with guidance in making in-the-moment decisions; they also provided Jessie with additional opportunities to make her thinking visible and to make Mario’s thinking visible as well.

Some of Mario’s interruptions during his teaching involved very straight-forward questions, (e.g., questions about pacing), leading to very brief pauses. Nevertheless, besides providing an answer, Jessie usually included her thinking around her answer. During one math lesson in March, for example, the interruption transpired as follows:

Mario: Ms. B., I need a Teacher Time Out. I’m noticing I’m running out of time.

Jessie: I think every adult would be using a calculator for this kind of problem; if students did this work with a calculator, and you can show where that is on the computer, then after the small group time, we'll all come back and see if we get the same answer.

Mario: Great!

*Mario shows students how to find their computer calculator and proceeds as suggested by Jessie*

Here, Jessie not only suggested a solution to Mario's self-described pacing problem, but also explained why using a calculator would be reasonable. During other Mario-initiated interruptions, Jessie responded with questions, inquiring into Mario's thinking before making a suggestion. For example, in a math lesson on estimations and decimals, Mario asked for feedback on a teacher move he was considering:

Mario: A quick Teacher Time Out: is this OK if I go to the thousandths?

Jessie: I guess back to you: why do you want to do this?

Mario: To see if they really understand what you use to round [the numbers].

Jessie: OK, let's see what happens.

This brief interruption provided Mario with help making an in-the-moment decision and provided Jessie with help in understanding his thinking around his proposed action. Furthermore, when Jessie said, "let's see what happens," she modeled the role of inquiry in teaching, the fact that often there is not one, knowable right decision to make in-the-moment; instead, looking at how students respond guides assessment of that move.

Another interruption initiated by Mario in a different Math lesson showed Jessie not just answering his question, but piggybacking on it to help clarify what he wanted students to do:

Mario (to students): I'm giving you about one minute. *(Pause)* OK, start typing [your answer] in chat but don't hit enter yet!

Mario (to Jessie): Ms. B., is it OK if we count down in Spanish?

Jessie: Yes, but what do you want students to do then?

Mario: Hit enter.

Jessie: What do you want to see in chat? Both numbers?

Mario: Yes.

Jessie: OK, so both numbers, written in chat.

*Mario leads students through a countdown in Spanish, and then they all hit enter to reveal their responses. Mario continues the lesson.*

In this case, Mario received guidance on his decision, and Jessie helped clarify expectations for students. At that moment in the lesson, Jessie simultaneously served Mario's needs and her students' needs.

The small number of Mario-initiated interruptions did not seem to be reflective of the value he saw in them. He described the relief he felt during a Social Studies lesson on enslaved Africans when he called on Jessie for help with phrasing. In this lesson, he said, he was worried about mis-speaking when it was "...really important to get the phrasing and the words right,...especially on [sensitive] topics like this." He also cited affirmation and confirmation of his thinking as a positive outcome of initiating interruptions himself. When wondering about deviating from his lesson plan, and "hearing back that we're on the same kind of thinking," Mario said, "feels great."

Instances where Mario initiated interruptions, however, were rare, in contrast to Jessie who seemed to fully embrace this mentoring tool. Jessie wished Mario would habitualize

initiation of interruptions, and not just to receive her support in-the-moment; she also wanted to help him recognize the value of a pause during instruction. She explained to him the role of a pause in professional practice, she told me, like this:

‘You know, you are going to wish you had someone with you next year, believe me...

You’re gonna wish that there was someone there to catch what you just said and give you a timeout so that you could think that through again...’

Thus, in some ways, an interruption could simply serve as practice for taking a reflective moment for oneself in the midst of instruction. In the spring, in preparation for their fall launch into independent teaching, Jessie said she tells her novices, “Listen, [a pause] is a good thing. Just do it by yourself, wait a second. [Say to yourself], ‘Let me think about what I just said there.’”

### **Challenges to Appropriation of Interruption as a Pedagogical Tool**

As reported above, both Jessie and Mario found interruptions to be a valuable in-the-moment mentoring routine in supporting both Mario’s professional growth and Jessie’s dual role as a teacher of children and a teacher of a novice. Jessie used interruptions to support Mario’s learning by making her and Mario’s thinking visible, nurture in-the-moment decision-making and professional inquiry, help capture educative moments that might otherwise be lost in the whirl of a normal school day, and correct or clarify Mario’s instruction. Mario himself noted these interruption-afforded contributions to his learning, appreciating the feedback and support in making in-the-moment decisions. At the same time, though, Mario hesitated to fully embrace interruptions, and rarely initiated them. This hesitation and lack of initiation posed challenges to full appropriation of interruption as a pedagogical tool in this mentoring system. In this section, I

analyze these challenges and present how Jessie and Mario navigated them, with varying degrees of success.

### ***Challenge 1: Embracing the Disruption of Interruptions***

Interruptions, according to Jessie and Mario, initially can feel quite awkward, particularly for the novice. However, they both said, over time that awkwardness dissipates with the help of regular practice and growing understanding of the tool's function in learning to teach. Towards the beginning of the year, Mario said, interruptions felt more disruptive than anything else, because they "...took me out of my flow from teaching a lesson. And so I had to go back and regroup myself. You know, there's no time for me to process it as much in-the-moment, because I'm still teaching a lesson." Mario's concern about "processing" time arose in a December interview with him when he suggested he might prefer using videos of his teaching rather than experience interruptions to support his learning during instruction because video debriefs would offer more thinking time, more time for him to make connections between what occurred and feedback he received. Given Mario's own self-described difficulty with reflection (as presented earlier in his bio in Chapter Five), his discomfort with this aspect of interruptions as a mentoring mediating device was not entirely surprising. When I asked Jessie about Mario's suggestion that videos might be more helpful than interruptions during instruction, she said she understood that might be more in his comfort zone, but that the video idea ignores the incredible value of in-the-moment interventions. Jessie explained:

[I'm] not opposed to watching video of someone. But what I'm saying is that if I'm there and you're there in the same moment, and we can really take advantage of this one moment to make it more meaningful, more packed with learning, more for the kids and

for ourselves...then let's do that. Let's seize that, right? Let's not wait until Thursday evening and watch a video of it. Let's just do it, right?!

For Jessie, interruptions provided unique, real-time learning opportunities and making the most of those served everyone—novice, mentor, and students—in the classroom in valuable ways.

Furthermore, while Jessie recognized that interruptions can feel discombobulating for novices, she also believed learning how to manage interruptions was important preparation for the reality of teaching in one's own classroom. "I think," said Jessie,

it's so common for teachers to think, 'Don't interrupt me because I'm in the middle of this thing and it's gonna break the flow.' You know, there're interruptions all the time. *All* the time. There are fire drills that go off. That's going to be scary for [Mario] when he goes back into the classroom for the first time [after] a fire drill,...or the principal walks in. She's gonna [interrupt] with her thinking... So, you know, I think that's part of the 'craft of teaching,' and by golly, kids will absolutely interrupt you, either by their behavior or by speaking out, or by, you know, leaving the room without knowing where the hell they're going. All those things happen on a day-by-day basis. And so [mentoring with interruptions], when you think about that in terms of the other interruptions, it's building your practice.

According to Jessie, then, interruptions not only build pedagogical skills, but also practical classroom management skills. In a real-life classroom, interruptions are normal, but still the show must go on. Even in this year of remote learning everyone in the classroom had to contend with interruptions because of glitchy tech: students and teachers both found themselves suddenly dropped from Teams and couldn't get back in, audio or video failed, access to documents disappeared—unanticipated interruptions that students themselves learned to handle gracefully.

Thus, Jessie said, it is also important not to worry about how students experience interruptions either. It was important to Jessie that Mario not misunderstand "...the brilliance of kids, how much they can carry, how much they can take. How resilient they are."

While some of these understandings around interruptions Jessie felt comfortable leaving to grow organically over time, she also purposely set out to normalize their use as part of her mentoring practice from the very beginning of the year and articulate their purpose. "...The hope is that [they get] less awkward" with time and practice, Jessie said, but she also made a point of telling Mario multiple times how interruptions were a normal part of the CTR clinical experience. Furthermore, she said, she tried to convey verbally and through modeling that her classroom "...is a place where we mess up. It's a place where we learn, a place where we have fun, a place where we try new things out. And you know, everyone's a winner in the classroom."

Mario did tell me that over time interruptions "got easier," that he "got used to them," and learned that he didn't need to fully process an interruption in that moment, but could reflect upon it later. And Mario's own descriptions earlier in this chapter about the ways he benefited from their use show that indeed he did end up not just accepting them as a normal part of his learning experience, but also recognized how, specifically, they contributed to his professional growth. Still, interviews with Mario showed that even over time and despite their regular presence in this mentoring practice, he continued to associate interruptions more with incompetence and failure, rather than a tool to support collaborative, constructive inquiry into teaching and learning.

### ***Challenge 2: Building a Shared Understanding of the Role of Interruptions***

As described earlier, Jessie frequently used interruptions to correct or clarify Mario's teaching efforts, a use Jessie valued in order to address errors or other issues that could cause the

lesson to founder—a use consistent with her prevailing concerns about student learning in the unfamiliar remote context. Also mentioned earlier, Mario stated that this kind of interruption could “sting” because “...you know you did something wrong,” and that he learned not to take the corrections personally but instead to accept them as learning opportunities. For example, Mario told me,

Science has so much knowledge to it..., knowledge that I don't have memorized. And I am liable to say something wrong at times. And I can read through the content as much as I can but I'm likely to forget something along the way. And so I have to remember, like if I said something wrong, that she can catch me doing that, she can help me out with that. And then I do my part [by] apologizing to the class and I'll try to get it right the next time.

Indeed, my observations showed Mario responding positively to Jessie's corrections and clarifications during instruction, making adjustments to his lessons accordingly, thanking her, and/or acknowledging that he made a mistake. Just as Jessie desired, he consistently modeled the classroom norm she intended to establish regarding learning from mistakes.

In time, though, Jessie recognized that Mario seemed to overly associate interruptions with “errors.” While Jessie did want Mario to accept corrections and clarifications as learning opportunities, she worried about him thinking that interruptions signaled failure on his part, or were somehow punitive. A December interview with Mario confirmed a basis for this worry, when he told me that he wasn't initiating interruptions because, he said, “...I feel better about my teaching at the moment,” implying that interruptions are used only when things are going badly. He also told me that he knew some of his lessons were better than others when she interrupted him less. This kind of thinking troubled Jessie for two reasons. First, in no way did she intend for

the use of interruptions to function as a bell weather. True, sometimes she did intervene a lot when she found a lesson particularly problematic and was concerned about students getting something out of it. Other times, however, she told me that she stayed completely silent during a highly problematic lesson because she didn't even know where to start with an intervention, and would figure out a different way to address the particular problems that lesson surfaced. Thus, the quantity or type of interruptions should not have been considered an indicator of success or "failure."

Second, while she wanted Mario to develop confidence in his teaching, the idea that there ever was nothing in a lesson worthy of questioning or wondering about bothered Jessie. In both Jessie's biography (Chapter Five) and my findings in Chapter 6, I describe Jessie's irritation if novices seemed to think they "have teaching in the bag." While she partly ascribed that kind of thinking to possible arrogance or over-confidence of some people, what really dismayed her was an apparent unawareness that fundamentally, in her eyes, no one has teaching "in the bag;" instead, she believed, continuous reflection and improvement are a cornerstone of teaching as a profession. In response to her concerns about Mario's interpretation of interruptions in her mentoring practice, she resolved to continue to remind him of how interruptions promote learning and to continue to model that for him.

In a March interview, Mario told me that, in fact, Jessie's concerns about his interpretation of interruptions had been valid, and that his association of them with failure had prevented him from more freely utilizing them himself. "I remember," he said,

I kind of felt...a sense of failure in a way, where if I have to use an interruption it felt like I didn't prepare well enough..., so that's why I didn't really use [them] much at the beginning. It felt like I was not doing my part, not pulling my weight.

When I asked him what had finally helped him transcend that kind of thinking and begin to initiate more interruptions, he told me (laughing lightly) that it was repetitively being told to use them. Also, he said, his CTR coach told him to make sticky note reminders to initiate interruptions and put them on his monitor. This continual urging, he said, led him to begin trying them out, and when Jessie's responses affirmed his thinking, he felt "great," and gained confidence initiating them. According to Mario, then, a combination of persistent prodding and perceived approval of his thinking by Jessie helped him overcome his trepidation, and launched this new kind of interaction with the tool.

This account of Mario's hesitation but ultimate willingness to initiate interruptions reveals a conundrum inherent in full appropriation of them as a pedagogical tool. On the one hand, Jessie utilized the tool to correct Mario's teaching efforts, a use that Jessie felt supported the learning of both Mario and her students. Mario concurred that that type of interruption helped him learn and was able to provide examples, as described earlier in my Findings. On the other hand, this same enactment seemed to discourage Mario's initiation of interruptions and, in Mario's case, promoted an association of interruption with failure. Then, when Mario finally began initiating interruptions, he cited experiencing affirmation of his thinking as key to helping him more fully embrace the tool. Herein lay a tension: this novice needed to feel approval in order to take the risk of initiating an interruption, but when used as a corrective device, interruptions elicited feelings of incompetence. This dilemma recalls earlier mentoring goals and tensions described by Jessie: her stated desire to grow her novice's professional confidence, one grounded in real, meaningful skill development, while simultaneously ensuring meaningful, rigorous learning experiences for her students.

Thus, over time, Mario's understanding of the conceptual underpinnings of interruptions as a pedagogical tool and his use of them evolved over time. Still, it took five months before he tentatively began initiating interruptions, and in my observations, he never interrupted when Jessie was teaching, missing out on valuable opportunities to peek into the thinking guiding her instructional decision-making. Whether that delay and omission matters, and if so, how that could have been remedied, are questions that will be addressed in the discussion and implications sections of this paper.

### **Chapter Seven Summary**

This chapter presented my findings regarding Jessie's regular use interruptions as a pedagogical tool to support her novice's learning during instruction and mediate tensions in her mentoring activity system. First, I described Jessie's use of interruptions as originating in a mentoring routine called Teacher Time Out and describe this routine's protocol. Then, I shared how four different purposes shaped Jessie utilization of interruptions to mediate her mentoring: "making thinking visible," "capturing a moment," and "collaborative decision-making," and "righting the ship." Additionally, I explained how the educative value Jessie and Mario derived from use of interruptions as a mentoring tool led to a high degree of appropriation. This appropriation was also contributed to by Jessie's efforts to normalize interruptions, with early introduction, repeated use, and encouragement of novice use of the tool. Finally, I described how appropriation nevertheless faced challenges, particularly from the disparate views and understandings of the role of interruptions in learning to teach held by Jessie and Mario. Next, in Chapter Eight, I present the second mentoring tool that Jessie adopted in her efforts to support Mario's learning during instructional time.

## **Chapter Eight: Findings: Nurturing Teacher Noticing Through Novice Note-Taking**

Jessie developed her second in-the-moment mentoring tool part way through the year directly in response to the augmented tensions around growing Mario's teacher noticing skills. To mediate this particular tension, Jessie introduced "novice note-taking" as a pedagogical tool, an expectation that Mario take notes during her instruction of students. Though Mario hesitated initially to enact this observation routine (feeling note-taking would prevent him from processing what he observed), he came to highly value its function in improving his noticing and providing him with concrete strategies to better meet students' needs. Nevertheless, questions around the enactment of this routine arose, particularly in regards to whether or not his note-taking gave rise to deeper conceptual understanding around Jessie's in-the-moment instructional decision-making. In this chapter, I describe how novice note-taking emerged as a routine, what value Jessie and Mario derived from it, and to what extent the routine's enactment proved educative.

As reported earlier, Jessie identified engaging students and understanding their thinking in the remote context as particularly challenging for both herself and for Mario. They had frequent conversations about this issue, and in the classroom experimented with different materials, modes of communication, and routines in order to figure out how best to mitigate the challenge. By December, however, Jessie felt discouraged by Mario's slow progress in his attentiveness and responsiveness to students and her own modeling of this professional practice, despite repeated conversations, despite direct feedback both during instruction and in lesson debriefs. Though Mario was always open to Jessie's feedback, that did not always seem to translate into changes in his performance, and Mario himself seemed be aware of this problem. In December, Jessie told me that in a recent debrief he had said that he was having trouble keeping track of the feedback he received from her. Separately, Mario had told me the same, and

suggested that perhaps a solution could be that Jessie send him her debriefing notes so that he could refer to them after their debriefs. Apparently, he had raised that same idea with Jessie because she later recounted her response to him: “Great, then *you* organize the Zoom meeting and then it’s under your [account] and then you have the [transcript], that’s fine. But also, you can take notes—that’s another thing we do.” Thus, while both Jessie and Mario recognized his struggles with converting feedback into skill development, Jessie also believed Mario needed to take on more responsibility for his own learning. For example, what was he actually doing during lessons she was teaching? In what ways was he engaging with learning opportunities that came out of observations of her and the students? What was he noticing? In this remote format she didn’t really know. “It’s interesting,” she said,

because if we were in a [physical] classroom and I noticed that he was just sitting there like this (*Jessie sits totally still*) for thirty minutes straight, that would be unacceptable. No, like walk around, or you’re sitting and taking notes. Right? So I guess I’ve been assuming this whole time that he was kind of taking notes and so today one of the things I said was, ‘When you’re not teaching, what you should be doing is listening to, watching the whole lesson go down and asking questions and noticing, [like] the flow of the lesson, and then writing down questions so that when we get to the time where we can sit and have a conversation you can ask a specific question like, ‘Oh, why did you make that teacher move at that point?’”

Clearly, Jessie felt Mario was not truly engaged during observations, and subsequently was not learning enough through them. She wanted Mario’s teacher noticing to improve and for that, in turn, to stimulate active curiosity on his part, inquiry into teaching and learning, rather than relying on her to lead all of his learning.

### **Passive vs. Active Observation**

By late January, Jessie still felt that Mario was not “really picking up on things,” and decided he needed to start a daily note-taking routine during instructional time, focusing on things like how she got students’ attention, what kinds of questions she chose to ask them, how students responded, and what kinds of questions students asked. For extra support, she decided to ask Mario’s coach to help him develop this routine, feeling that his coach could add an element that she, Jessie, could not. Jessie had been delighted during a previous year’s mentoring when her novice’s coach modeled this kind of note-taking for her novice while she, Jessie, taught. “[The] brilliance of that,” Jessie told me, “was that I don’t notice what I’m doing when I’m teaching because there’s 100 decisions that I’m making every minute, right? Exactly. And so [they] sat there and then they went over [the notes] together and I joined them for an hour after school.” Although Jessie did use Teacher Time Outs to call Mario’s attention to her thoughts and actions, clearly she felt that there was so much more going on that Mario was not catching and learning from, and that she herself was not always aware enough of to call to his attention. These thoughts of Jessie’s echo Borko’s (2008) contention that normally only unexpected situations prompt experienced teachers’ awareness of their decision making, highlighting the need to find purposeful methods to help illuminate mentors’ many decisions and related moves for their novices.

Subsequently, Jessie enlisted Mario’s coach to help him establish a note-taking routine, and by the end of January, Jessie reported that Mario had begun taking notes as requested, and indeed, he seemed to be picking up more from his observations. In March, Mario described some teacher moves he had been learning by watching Jessie, such as engaging students with

kinesthetic vocabulary or metaphor activities. When I asked how she taught him those moves, he replied,

It's more so the notes I've been taking, not everything has been explicit that she tells me, but I take notes during our lessons and so I've seen that she's been practicing some of those things. And so I make a note of it and that helps me to keep in mind, 'Yeah, you should do this later on in another lesson and try it out, see how it feels,' and [I] do it once, do it twice, and then it just keeps happening and happening.

Thus, the note-taking did seem to stimulate Mario's noticing and function as a reminder to incorporate into his own teaching practices learned through observing Jessie. Previously, Mario said, Jessie might have told him to watch something specific she would be modeling, but now, mid-March, "...it's more just take notes during the lesson and see what I do, and so I've been catching on to more the interesting things and thinking about it. We don't always connect together with saying, 'Oh, I saw you did this and that,' but rather I just implemented it myself, and I think about it." The new note-taking routine seemed to have taken hold, resulting in more active observation habits, professional noticing skill development, and increased reflection, all leading to implementation of new teaching practices.

In fact, in our final interview, Mario named note-taking as being the most supportive learning device that Jessie had wielded during their year together (with Teacher Time Outs hot on its heels). "I felt like I learned the most," he said,

from when she instructed me to start taking notes of what she does and questioning them and pointing them out to her during our times when we meet up, and making connections, like why it's done and why it's beneficial. Just observing and really observing and taking notes has probably been the best, and in an active manner, rather than just passive, like,

“OK, you know this student needs help,” just assisting and not actively listening and wondering what’s happening...

It appeared that one of Jessie’s main goals in instituting note-taking during instructions had been met: moving Mario from passive to active observation, and thereby developing his teacher noticing skills.

Furthermore, Mario believed that this active observation helped overcome a major obstacle to his learning: the absence of student behaviors that in a physical classroom could indicate the effectiveness of certain teaching moves. He explained:

...[When] I was doing a lot of in-person [substitute] teaching, a lot of what told me what was right and what was wrong was student body language, seeing how kids are in the classroom, if they’re paying attention, if they’re responding... I don’t have that feedback now, so I needed more sophisticated ways of being able to pick up on [whether] what I’m doing is working.

Mario felt that Jessie’s note-taking routine helped him mitigate one of the central tensions of Jessie’s mentoring activity system this year: learning to engage and respond to students’ needs when, in this remote context, students remained primarily invisible and non-verbal during instruction. For example, Mario said, by observing Jessie he had learned to tell students to “unmute” themselves and lead them in choral counting or reading. “I can’t tell if [all] students are [participating],” said Mario, “but those that are, are benefitting..., and even if [a] student isn’t [speaking], it’s repeated hearing at least from not only the teacher, but from other students.” In other words, Mario felt he was learning solid teaching moves that promoted student engagement. While students had not increased their visibility or audibility, Mario was noticing *Jessie’s* instructional moves more.

I also observed Mario employing a new routine after he began note-taking, one that Jessie had modeled for months but that he previously had not enacted: checking for compliance when asking students to access documents and Exit Tickets, and commenting on who was and was not on task, thereby prompting all students to stay with the lesson. “Yeah,” Mario responded, “it’s definitely something I picked up from Jessie. I always kind of thought it sounds like I’m calling a student out, like, ‘You’re not doing your work, get on task,’ but it’s necessary, it is not as negative as I used to think before, it’s more so keeping the students accountable.” And a simple move like this, he noted, could help particular students’ needs at that moment. “It’s not a personal thing...to be called out on, it [can be] a tech problem that some students can access it quickly..., or some just have to get up off the bed and go to the computer...” Mario also acknowledged that figuring out how to be responsive to student needs in-the-moment remained a challenge in this context, but that some of these remote solutions were “the best that we can do at this time.”

### **Prescriptive vs. Interpretive Noticing**

Engaging in more active observations engendered by note-taking, Mario said, helped him recognize the intentionality behind so much of what his mentor did during instruction, leading him to adopt practices that he simply had not noticed before. Overall, he said, as a result of note-taking during observations, he himself learned to be more intentional and more proactive in his learning, both “in and out of the classroom.” Interestingly, however, Mario’s increased attentiveness did not seem to inspire him to ask more questions about what he was seeing and hearing. According to Jessie, Mario told her that he would notice something, wonder why she did it, but then by the end of the class understand the move; actually asking Jessie about it later seemed unnecessary to him. When I asked Mario if he followed up on his notes with questions

for Jessie, he told me he didn't think it was necessary: "...[She's] so experienced, in that pretty much everything she does is intentional so there's really been no reason for me to say, 'Why did you do this when we could have done something different.' It's just like, yeah, she did it for a reason and it works out really well." Instead of using these noticings as a springboard for collaborative inquiry into teaching and learning, Mario seemed to use them more as a prescriptive device: you do it, so I'll do it.

Jessie, however, found that prescriptive use understandable given the overall trajectory of novice learning. To explain, she recalled her own learning when, during her entire first year of teaching, she chose to sit in a colleague's room and watch her teach once a week:

...I was there to watch Lou, I was watching Lou teach. And she wasn't my mentor, I wasn't her [novice], I was just a colleague,...a young teacher, and her way of talking to kids was so unique and lovely and the relationship that she had with her kids was so beautiful, and I've spent a career trying to do that, you know, create that relationship where they trust me and they love me and they know that I expect a lot... Just watching, I never asked her about it. So I can relate to Mario.

Thus for Jessie, sometimes just soaking up an experience, being wholly present and reflective, can be enough. In the language of cognitive science, Jessie valued active observation as an opportunity for new teachers to develop their decision-making schemata by noticing elements of teaching, making conceptual connections, and building informed, practical skills (Darling-Hammond, 2005). As reviewed in my literature chapter, however, researchers have asserted that observations best promote novice growth when they focus on issues of instructional significance *and* are paired with guided debriefs. These debriefs have been shown to clarify instructional

practice, situate it in particular teaching contexts, and support novice follow-through with feedback (Stanulis & Ames, 2009; Gardiner, 2017).

Therefore, while Mario made significant progress in shifting from a passive to active observation stance, apparently developing decision-making schemata, one cannot help but wonder what additional and/or deepened learning could have come out of some of Mario's observations when, perhaps, his assumptions about Jessie's decision-making may have been incomplete or even incorrect. Here, then, a striking connection arises, that between Mario's in-the-moment note-taking and his limited initiation of interruptions during Jessie's instruction. What fruitful, unplanned exchanges could have arisen from a question had he asked it, stimulating thoughts from Jessie that otherwise would not have occurred to her to share, or providing her with new understanding about how he was processing the classroom experience? Interruptions, after all, showed that powerful learning can arise when *both* mentor *and* novice make their thinking visible.

### **Chapter 8 Summary**

This chapter described Jessie's introduction of novice note-taking, a mentoring pedagogical tool she incorporated in her practice to help Mario leverage learning opportunities during instructional time. Findings showed that both Mario and Jessie valued the learning they attributed to his note-taking, particularly in helping him to develop his teacher noticing skills. Mario moved from passive to active observer, began recognizing the intentionality around Jessie's teacher moves, and worked to incorporate those moves himself. Interviews and observations also, however, showed that Mario rarely followed up on his observations by posing questions to Jessie or sharing his thoughts on what he had noticed. While Jessie felt this lack of questions did not necessarily signal a lack of learning on his part and was a normal part of the

novice development trajectory, research has suggested that noticing paired with an exchange of thoughts leads to deeper understanding. Next, in my Discussion and Implications chapter, I explore this finding further, as well as what pedagogical tool theory suggests about interruptions and novice note-taking as promising additions to mentoring practices. Additionally, I consider how findings from this study contribute towards conceptualization of educative mentoring-in-the-moment.

## Chapter Nine: Discussion and Implications

The 2020-2021 pandemic school year thrust Jessie, a highly experienced teacher and mentor, into an unprecedented teaching and mentoring environment where she faced the task of providing both her students and her novice with a meaningful year of learning within a completely foreign, wholly remote context. This investigation revealed that the contextual shift unsettled Jessie, battering her usual confidence in being able to simultaneously provide both her students and her novice with robust educational experiences. The invisibility and silence of students in the remote space also exacerbated normal difficulties inherent in helping novices be responsive to student thinking and understanding, in this case by obstructing development of important teacher noticing skills; the online teaching and mentoring context eliminated much of the sensory data that normally provides teachers with informative feedback. My findings also showed that Jessie actively mediated these tensions by incorporating two mentoring in-the-moment routines, both of which she and Mario valued for the ways in which they leveraged learning opportunities during instructional time. These results suggest that interruptions and novice note-taking in-the-moment can operate as meaningful tools in a mentoring practice.

At the same time, the experiences of Jessie and Mario raise three questions important to consider. What do Jessie's and Mario's experiences over the course of this study suggest supports and inhibits appropriation of interruptions and novice note-taking as effective pedagogical tools in a mentoring system? More specifically, what is the role of the novice in these mentoring routines and how could this consideration impact the routines' effectiveness? Second, what are the implications of this study for the clinical component of teacher education programs? And third, how do the findings in this study contribute to a conceptualization of educative mentoring-in-the-moment? I discuss these questions and offer responses below.

### **Appropriation of Interruptions and Novice Note-Taking as Pedagogical Tools**

Pedagogical tool appropriation refers to the ways in which individuals adopt “conceptual” or “practical” (Grossman, et al.) tools to mediate the activity in which they are participating (1999). This appropriation, according to Grossman et al., can span a range from no adoption at all, to adoption in name only, to fully appropriating the conceptual underpinnings of the tool (1999). In this section I discuss the nature of Jessie’s and Mario’s appropriation of interruptions and in-the-moment novice note-taking as pedagogical tools, and how this appropriation impacted the effectiveness of the tools.

As reported in Chapter Seven, Jessie made frequent use of interruptions throughout the year and incorporated them into her mentoring practice in four ways: to make her thinking visible, to capture educative moments during instruction, to include Mario in collaborative decision-making, and to correct or clarify Mario’s teaching. The flexibility with which she wielded interruptions as a tool in her mentoring practice demonstrates a deep understanding of their value. According to Grossman et al. (1999), “Teachers who grasp the conceptual underpinnings of a tool are likely able to make use of it in new contexts and for solving new problems” (p. 17). Indeed, when faced with the daunting challenge of providing meaningful mentoring and teaching in an alien, remote context, Jessie was able to adapt and utilize interruptions to be responsive to her range of responsibilities, the remote context, and the unique needs of her novice. Likewise, faced with a teaching and mentoring context that challenged her novice’s development of teacher noticing skills, Jessie responded by creating and incorporating the routine of novice note-taking during her instruction of students. Jessie’s use of interruptions and novice note-taking suggests robust conceptual understandings around novice skill

attainment, its normal trajectory, and how mentoring tools can effectively mediate novice learning.

As an integral part of the mentoring activity system studied for this case, Mario's role in the degree to which pedagogical tools aided his learning is also important to consider. As shown in my findings, how Mario engaged with the use of interruptions and novice note-taking impacted the way in which they played out. For example, as he became more comfortable with interruptions and as his understanding of their purpose and possibility deepened, the tool's educative potential expanded from, for him, a corrective device to one with which he actively participated to develop in-the-moment decision-making skills. Likewise, Mario's evolving understanding of the noticing value of in-the-moment note-taking shifted how he engaged with it and the kind of learning that emerged as a result. Thus, whether Jessie's use of in-the-moment mentoring tools fulfilled their educative potential depended to some extent on the appropriation of these tools by Mario himself.

While Jessie introduced the two pedagogical tools of interruptions and in-the-moment note-taking, their use as mediating devices for the activity system also depended upon Mario actively engaging with them. And, as reported in my Chapters Seven and Eight, how Mario engaged with these tools varied. For example, earlier in the year, Mario hesitated to call for any interruptions because he believed that would signal failure and ignorance on his part. In this case, his understanding of interruptions as primarily corrective and essentially negative led to a lack of appropriation, and as a result, overall less benefit from the routine for the activity system as a whole. Over time, as his understanding expanded around the varied meaning and purpose behind the use of interruptions, his participation increased, and he more readily initiated their use himself, grateful for the support and learning that he derived from them when needing to make

in-the-moment decisions. Similarly, Mario's appropriation of in-the-moment note-taking also evolved over time. Whereas initially he worried that this kind of note-taking would be distracting and limit his "processing" of what he observed, he came to appreciate how the tool in fact sharpened his noticing, illuminating teacher moves he had missed before, and widening his repertoire of teaching tactics. Again, his appropriation of a pedagogical tool deepened as his conceptual understanding of the tool expanded, and the educative value of the tool thereby increased.

Mario's experience, therefore, suggests that the actual educative value of pedagogical mentoring tools depends to a certain extent upon the appropriation of the tool not just by the mentor, but also by the novice himself. A mentor, in other words, can fully appropriate a mentoring routine, understanding its purpose, value, and potential, and utilize it from an educative stance, but if the novice does not understand its conceptual underpinnings, the full range of possibilities that could be derived from that tool could go unrealized.

Mario's appropriation of the mentoring tools also illuminates a potential mismatch between Jessie's understanding of the goal of her mentoring activity system and Mario's understanding. From the beginning of the study, Jessie spoke again and again of her thinking and efforts around providing Mario with an educative in-the-moment mentoring experience. Her practice showed a clear alignment with educative mentoring principles as she sought to cultivate Mario's disposition of inquiry, focus his attention on student thinking and understanding, and engage him in "disciplined talk about problems of practice" (Feiman-Nemser, 2012, p. 272). For much of the year, however, Mario tended to think about his teaching as "right" or "wrong," and often looked for prescriptive solutions to his or his students' struggles. As Mario himself suggested, this tendency might partly have been an outgrowth of his previous experience as a

substitute teacher where his duty was to execute a list of procedures provided by the teacher of record, and it most likely was compounded by the absence of a shared physical setting with students where their actions and reactions during lessons would be much more visible.

Regardless, Mario consistently had difficulty in incorporating collaborative inquiry into his practice, even towards the end of the year. For example, while Mario's appropriation of both interruptions and in-the-moment note-taking increased, he rarely posed questions to Jessie about his observations of her teaching, instead assuming he understood the moves, and content to "copy" what he'd seen when next in a similar situation. Despite Jessie's contention that this approach by Mario seems consistent with normal novice development (which might be true), it also signals a possible gap between his understanding of the goal (or object) of the mentoring activity system and Jessie's own. Mario did not seem to share Jessie's vision of teaching as a life-long journey of collaborative and reflective inquiry into student thinking and understanding. Since the purpose of pedagogical tools is to help mediate an activity towards its goals, if individuals lack a shared understanding of those goals, it follows that their understanding and use of those tools would then differ as well. Therefore, for the full potential of mentoring tools to be realized, not only does the novice need to develop a conceptual understanding of the tools, the novice and the mentor must ultimately negotiate shared understandings around the goals of the mentoring activity system as a whole.

### **Implications for Practice**

The experiences of Jessie and Mario in this study suggest that interruptions and novice note-taking can provide mentors with valuable tools to help them leverage instructional time to purposefully engage their novices in educative experiences. Furthermore, consideration of Jessie's appropriation of interruptions as a significant pedagogical tool in her practice suggests

that developing a mentor's conceptual understanding of a routine not only facilitates its use as a flexible educative mentoring device, but also allows for a more expansive use, responsive to particular novice needs and changes in context, and contributes towards mediating the multiple competing demands endemic to mentoring practices in general. These findings suggest that mentors could be best positioned to maximize the potential of both interruptions and novice note-taking as mentoring tools if they receive training that focuses not just on the procedures, but also the tools' conceptual underpinnings.<sup>12</sup> Such training could empower mentors to take advantage of the range of possibilities the tools offer and do so with intentionality. Additionally, the discussion above addresses the ways in which the novice's understanding of interruptions and novice note-taking as supportive learning devices also influences their effectiveness. This finding suggests that novices also could benefit from training that develops their understanding of mentoring pedagogical tools, thereby positioning them to more fully engage in the range of learning opportunities available throughout a clinical experience. Below I offer more detail on these implications for incorporating interruptions and novice note-taking as practical educative in-the-moment mentoring tools in mentors' practices.

### ***Introducing Interruptions to Mentors' Practices***

Jessie's use of interruptions showed she understood them as a tool that, fundamentally, could help her novice develop teacher noticing, reflection, and in-the-moment decision-making skills. Naming and discussing these concepts as part of mentor training could be a first step in helping mentors envision the usefulness of the tool as they assess their own novice's needs and take first steps towards employing it. Additionally, to support mentors in not just deepening their understanding of the tool's conceptual underpinnings but also the variety of enactments possible,

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<sup>12</sup> To be clear, during the year of this study CTR mentors received no training on the TTO routine, and I do not know what was or was not emphasized in trainings in years past. Points made here are therefore not necessarily a commentary on CTR mentor professional development.

exposing mentors to the range of purpose interruptions can serve could be useful. For example, in this study I identified four types of interruptions in Jessie's mentoring practice. Providing such a list with examples to mentors could give them concrete ideas of how to incorporate the tool into their practice to support a variety of mentoring goals. Furthermore, such a list, if presented on a spectrum of degree to which the use is educative in nature versus prescriptive could help mentors reflect upon their own enactments, which types they have practiced, which they have not, and whether they are comfortable with the balance between their different enactments. This approach supports the mentors' own development of informed decision-making in their practices.

To be sure, the typology I identified is rudimentary, the product of one case study. Additionally, overlap between the categories exists, with most sharing characteristics with another. Further refinement of and additions to this typology could be an area for future research leading to increased understanding of the use of interruptions as a pedagogical tool for mentoring in-the-moment, and the multiple ways it can contribute to a mentoring practice.

### ***Developing Educative In-the-Moment Novice Note-Taking***

While my findings demonstrate that both Jessie and Mario valued in-the-moment novice note-taking for its help in scaffolding Mario's teacher noticing skill development, neither the tool's conceptual foundations nor a protocol have been fleshed out. Research into this area, as well as how to shape it to more embody essential elements of educative mentoring such as collaborative sense-making, could be useful. Such research could produce a strong tool to use not just for its singular potential in supporting noticing skill development, but also as a complementary tool to interruptions. After all, novices can only improve in-the-moment decision-making to the extent that they are actually noticing what is happening during

instruction. Furthermore, development of teacher noticing is fundamental to supporting novices' abilities to make enough sense out of what is occurring during class time to even begin to know what questions to pose and thereby grow their professional inquiry skills. Additional investigation into the role of in-the-moment novice note-taking, therefore, could provide mentors with another solid routine to add to their practices, and determine the ways in which it can complement other mentoring efforts.

Interestingly, the Coastal Teacher Residency program trains its mentors in a routine called "Charting," basically a mentor note-taking tool to "provide concrete, quantitative feedback on a novice's practice" (Appendix D) by focusing on particular novice teaching moves or classroom behavior while the novice teaches. In some ways Charting is a noticing tool, but according to the CTR protocol, it is the mentor who notices and then communicates that noticing to the novice. Charting could be transformed into a more expansive routine by extending its use from mentor-charting-novice to novice-charting-mentor, essentially creating an in-the-moment novice noticing tool. Although Charting was the one routine that CTR presented to its mentors in professional development during the year of this study, Jessie used it only once. If charting were expanded as a novice note-taking tool, research to establish the ways in which mentors do or do not find value in it could be informative in providing mentors with proven, effective routines.

### ***Supporting Novice Appropriation of Mentoring Pedagogical Tools***

The issues around Mario's role in the mentoring activity system suggest that additional attention to how novices understand mentoring tools and envision teaching as a profession could enhance their learning during the clinical experience. Not only could mentors benefit from training focused on development of their conceptual understandings of tools, training novices in this way could also help position them more as active learners in their placements, more capable

of the partnering required in a model of collaborative, co-constructivist learning-to-teach. Participating in this training could also give rise to important conversations with novices about what the tools' conceptual underpinnings suggest about the teacher education program's vision of teaching and learning, an effort towards helping to grow a shared vision between all participants of teaching as a profession. Additionally, engaging novices and mentors together in such training could help give rise to important conversations around these ideas and help mentors benchmark novice thinking in order to plan for the novice's growth and kinds of support needed. These kinds of conversations could also provide mentors with opportunities to further reflect upon their own conceptual understandings. While indeed, as Jessie proposed, deeper novice understanding around teaching concepts might naturally grow over time, nourishing this growth intentionally could promote faster and more robust engagement with mentoring routines and result in more novice success.

Furthermore, a focus on training novices in this way and purposefully engaging them in conversations with mentors around concepts and mentoring routines could, in traditional teacher education programs, help surmount the "two worlds pitfall," a situation where incongruence of teaching and learning ideas between programs and mentors weaken novice learning (Feiman-Nemser, 2012). In the case of CTR, mentors already function as an integral part of the teacher residency program, resulting in high congruence, but perhaps even more success could be had if, for example, novices joined mentors in professional development sessions to learn about mentoring routines and discuss related concepts. Including novices in training around mentoring routines and creating guided opportunities for mentors and novices to develop shared visions around teaching and learning in a variety of teacher education programs could be an area for future research.

Finally, Mario's experience with interruptions suggests that one important aspect to emphasize is their value in making *novice* thinking visible. When Mario did not initiate interruptions, what he was thinking remained invisible to Jessie. If Jessie used interruptions in such a way that did not engender a quick exchange of ideas, that intervention risked alienating Mario if, in fact, she misunderstood what he was doing or where he was going with his lesson. When Mario practiced in-the-moment note-taking, unless he articulated what he was noticing and how he understood it, additional important learning might have been lost: perhaps he misunderstood what he saw, or understood it only superficially; perhaps by sharing his thinking it would have opened the door to other, related ideas for Jessie to share that otherwise remained unearthed. This study, therefore, suggests that using pedagogical tools to surface novice thinking should be emphasized. If and how such emphasis provides additional value to mentoring and novice learning could be worthy of investigation. Ultimately, this study centered Jessie by focusing on her mentoring activity system. Ideas raised by findings concerning Mario's appropriation of mentoring tools suggests that research which centers the novice experience in regards to in-the-moment educative mentoring could greatly enlarge overall understanding of the role of mentoring pedagogical tools in novice learning.

### ***Supporting Mentors and Novices to Leverage Learning Opportunities in the Clinical Setting***

My discussion above centers upon particular kinds of learning that this study suggests would benefit both mentors and novices in the clinical setting. It is important to acknowledge, however, that the Coastal Teacher Residency program is uniquely situated to provide such learning as a result of its structure: CTR prioritizes the clinical component of the program through a competitive mentor recruitment process, specialized and recurring professional development for mentors, meaningful mentor compensation, and structured integration of course

work and practice in the clinical setting. Jessie and Mario benefitted from working in a program in which the various program components were highly coordinated and structured to support each other. For example, Jessie's work on engaging Mario with both pedagogical tools, interruptions, and note-taking, was supported by the instructional coach, support which resulted in important learning for Mario. Thus, taking up a focus on educative mentoring in-the-moment and the development of conceptual understanding of the underpinnings of pedagogical tools for both mentors and novices to promote shared visions of teaching and learning is achievable for CTR considering its structure and resources. I fully recognize that throughout the United States most teacher education programs do not have the structures in place to easily implement the approach to mentoring this study suggests.

Yet, this study has shown that with proper structural support of the clinical component, mentors can serve as highly effective teacher educators in the ways that the field of teacher education calls for. Ultimately, if children across the United States are to be given well-qualified teachers, all teacher education programs should provide the structures and resources that support the decidedly impactful clinical portion of teacher training. Other countries around the world have succeeded in doing just this. Finland, Singapore, China, and Australia provide examples of national, regional, and city-wide teacher education programs where the clinical setting is treated as a critical component in creating high-performing schools (Darling-Hammond et al., 2017). As opposed to the United States where the prevailing model of mentoring in teacher preparation expects mentors to mentor with next to no training while maintaining a full teaching schedule, mentors in these international settings are given the compensation, time, and professional development to do their job. Furthermore, these countries with widespread high performing schools fully integrate the clinical experience in teacher education programs, with program

structures that position and support mentors as members of teacher educator teams across schools, districts, and universities. Additionally, this attention to teacher education extends to the induction phase, continuing to provide novices with mentors systemically equipped to support continual professional growth (Darling-Hammond et al., 2017). Systems such as those in Singapore and Finland that prioritize mentoring as a skilled, learned profession can serve as useful models in reimagining our own.

There is no way around the fact that moving from imagining to creating new systems in teacher education to better support the clinical component of teacher education requires resources. However, as these international examples show, if as a nation we believe our children deserve great teachers, prioritizing investment in teacher preparation and continual development in the induction years is needed (Darling-Hammond et al., 2017). This is an area crying out for public and private investment, partnerships between government, school districts, universities, teacher unions, and philanthropy to transform clinical teacher education by providing the monetary and structural support to make the vision of mentor as teacher educator truly a reality.

Furthermore, as our experiences with remote work during the Covid-19 pandemic have shown, some traditional teacher education structural and financial constraints could be surmounted by introducing remote mentor professional development. By offering remote professional development to mentors, traditional teacher education programs' logistical issues around physically gathering mentors could be mitigated, and the cost would be reduced as well by eliminating travel expenses. Additionally, costs that cannot be avoided (e.g., mentors' and presenters' time) could actually be shared by partnerships between institutions. If states and districts focused attention on the clinical component of teacher education (as they should), there is no reason why remote mentoring professional development sessions could not be attended

simultaneously by mentors working for a variety of organizations and be paid for by the cooperating institutions together. Teacher education programs could offer a hybrid approach as well, with some sessions being larger, cooperative sessions across multiple institutions, and others being limited to their own mentors, focused on their particular needs. Novices could attend these smaller sessions so that they too could learn how to leverage their clinical experiences to promote their professional growth.

### ***The Role of Interruptions in Educative Mentoring-in-the-Moment***

In setting out to conduct this case study, one of the possible outcomes I identified was a contribution to further conceptualization of in-the-moment educative mentoring, a sub-category of educative mentoring that has been under-studied and under-conceptualized. In fact, analysis of the data collected revealed the emergence of two central themes relating to educative mentoring in-the-moment as a concept: one, specific teaching skills that mentoring during instructional time helps to develop, and two, the specific actions that a mentor can enact in order to help build these skills. In this section I discuss these skills and actions and how their identification contributes to conceptualizing educative mentoring in-the-moment.

Educative mentoring-in-the-moment brings the general nature and focus of educative mentoring into instructional time: purposeful and guided enactment, disciplined talk about problems of practice, with a focus on cultivating a disposition of inquiry, particularly into student thinking and understanding (Feiman-Nemser, 2012). The question that then arises is what shape do these elements assume when moved from the typical context of before-lesson planning or after-lesson debriefs and into instructional time? This study showed that in Jessie's and Mario's case, instructional time provided special opportunities to develop Mario's noticing, reflective, and in-the-moment decision-making skills. Furthermore, the "disciplined talk" about problems of

practice occurred in short snippets, both by mentor and novice making their thinking visible and, more generally, through the use of interruptions. This study, then, suggests that in order for the mentor to leverage instructional time for novice learning, interruptions must become a normalized part of mentoring practice. Unless the mentor and novice can develop comfort with regular interruptions during instructional time, making thinking visible in-the-moment simply cannot happen.

As described in my findings, Jessie herself spoke about the importance of normalizing interruptions, and doing so right from the beginning of the school year. She also spoke about it not being difficult for her to accept interruptions as a normal part of her mentoring practice since teachers must contend with various kinds of interruptions continually during lessons, whether from students, other adults entering the room, or other unexpected events like fire alarms. Furthermore, she echoed Furman et al. (2019) (see Chapter Three) when she positioned interruptions as necessary pauses in teaching, moments all teachers need to notice, reflect, and make in-the-moment decisions about lessons as they unfold. The CTR Teacher Time Out Primer claims that mentors new to the routine “...move almost immediately from feelings of anxiety over talking during a lesson to excitement over the opportunity to collaborate in-the-moment with a colleague” (Appendix C). If or how CTR has experimented with different ways of acclimating their mentors to interruptions was not a part of data collected for this study because they did not mention Teacher Time Outs in any mentoring professional development session. Research into their methods and how new mentors learn to incorporate interruptions into their work along with what challenges they face in doing so could be informative for teacher education programs wishing to help mentors adopt in-the-moment educative mentoring practices.

In this study, Mario showed greater unease than Jessie with interruptions, and acknowledged that it took a while for him to gain comfort with them, despite Jessie's efforts. However, since he rarely initiated interruptions himself, true comfort seems to have never fully materialized. Earlier, when I considered Mario's appropriation of mentoring tools, I discussed how inviting novices into mentoring trainings might help novices more fully engage with mentoring tools. Another way to help normalize interruptions and support novices' understanding of their value could be for faculty in teacher education programs to themselves incorporate interruptions during their classes, similar to how Furman and Larsen (2019) experimented with the method (see Chapter Three). Furman and Larsen's study presents an interesting possibility for supporting the normalization of interruptions that educative mentoring-in-the-moment requires. Perhaps faculty modeling of interruptions and supporting discovery of their value could help novices more readily and fully embrace their potential during their clinical experience. This is an area for further research.

Also deserving of further consideration is more analysis around the interplay between types of interruptions and positionality of mentor and novice in the clinical classroom. Initial research into interruptions as a pedagogical tool in teacher education found interruptions fell into two categories: comments and questions (Furman, 2019). Additionally, this research found that students were both intrigued and frightened by interruptions. They were intrigued because of the invitation to join in a collaborative thinking venture, hear new perspectives, and make their own thinking visible; on the other hand, they were frightened because posing questions or offering one's own thinking in response to someone else's can feel like a risky proposition, potentially offending someone, and possibly disrupting the knowledge hierarchy that exists between teacher and student. My own findings similarly showed Mario intrigued by interruptions, but hesitant to

fully engage out of fear of appearing resistant to Jessie's input or out of deference to her position as a holder of knowledge. Further research could probe the possibilities and limitations of interruptions in environments like clinical classrooms where hierarchies and power structures exist, and whether the types of interruptions used contribute or detract from their educative possibility.

### **Significance of the Study**

Prior research recognizes the clinical portion of teacher education as pivotal in the development of new teachers and especially effective when mentors of these novices enact an educative stance, one focused on collaborative inquiry into practice and student thinking and understanding (Feiman-Nemser, 2012). Most of this research, however, has primarily explored mentoring that occurs before or after classroom instruction, leaving activities and tools that mentors could use to enact educative mentoring *during* instruction minimally defined. This qualitative case study addresses this research gap, and its findings contribute to the field in two significant ways. One, it begins to identify practical, powerful tools that leverage instructional time to support novice inquiry into student thinking and understanding and provides insights into the kinds of training and support needed for both mentor and novice if the tools' full potential is to be realized. And two, this investigation contributes to the conceptualization of educative mentoring-in-the-moment.

First, this study's significance is found in its finding that suggests that interruptions and novice note-taking can provide mentors with tools that help them purposefully engage their novices in educative experiences. Additionally, my findings suggest that mentors would be best positioned to maximize the routines' potential if they receive training in the tools' conceptual underpinnings. Such training could empower mentors to take advantage of the range of

possibilities the routines offer towards deepening a novice's educative experience during class time, do so with intentionality, and effectively mediate challenges that all mentors must contend within their practice. Furthermore, my findings suggest that the educative potential of the tools depend not just on mentors' understanding of the tools' conceptual underpinnings, but novices' understanding as well. Novices would benefit from a shift away from passive receivers of mentoring and towards a more active learning stance. They, too, should receive training in mentoring routines in order to better position them to partner in the collaborative, co-constructivist mentoring model that the field of education has identified as preferred for the clinical experience.

The second main significance of this study is its contribution to conceptualizing educative mentoring-in-the-moment. Analysis of my data revealed the emergence of two central themes relating to educative mentoring-in-the-moment as a concept. First, this study identified specific teaching skills that mentoring during instructional time uniquely helps to develop: teacher noticing, reflection, and in-the-moment decision-making skills. Educative mentoring-in-the-moment, by making both mentor and novice thinking visible, can support novices in expanding what and how they notice events, activities, and student behavior and thinking. Such noticing supports development of more accurate and thoughtful professional reflection, which in turn enhances the growth of in-the-moment decision making skills. Secondly, this study's findings suggest that interruptions are central to educative mentoring-in-the-moment. In order for mentors and novices to make their thinking visible during instruction, interruptions must become a normalized part of mentoring practice. Rather than operate within a paradigm where interruptions signal rudeness or disrespect, this study suggests that educative mentoring-in-the-moment requires a more positive and constructive definition of interruption, one that positions it

as a critical component of an ongoing, dialogic, and collaborative mentoring and learning experience.

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Appendix A:  
Sacred Meeting Time Guide

CTR Sacred Meeting Time

This document was originally developed by the CTR team from resources provided by the National Center for Teacher Residencies (NCTR) and has been revised based on data collected from Mentors and Residents.

Resident and Mentor should establish a schedule of 1 or 2 Sacred Meeting Times per week, when they will commit to meeting together regardless of other interruptions or events. Note that Sacred Meeting Time should be separate and *distinct from regular lesson planning*. A potential weekly schedule might look like this:

Monday	Tuesday	Thursday
15 minute meeting to discuss final feedback on this week's lessons or changes to objectives	75 minute Sacred Meeting Time after school	15 minute meeting to plan for next week's learning objectives

An important part of keeping Sacred Meeting Time effective is knowing that it will change across the year. Use the table below as a big picture guide for structuring this important time together.

	<b>Fall</b>	<b>Winter</b>	<b>Spring</b>
<i>Responsibilities</i>	Mentor brings topics to discuss	Mentor bring topics to discuss in January and	Resident brings topics to discuss

		February Resident starts to bring topics in March with support as needed	
<i>General Topics</i>	<ul style="list-style-type: none"> <li>• Building a strong relationship</li> <li>• Planning lessons across content areas</li> <li>• Types of assessments</li> <li>• Making sense of curriculum/resources</li> <li>• Knowing student IEPs/504s</li> <li>• Modeling unit planning</li> </ul>	<ul style="list-style-type: none"> <li>• Designing assessments</li> <li>• Modifying assessments from a curriculum</li> <li>• Analyzing student work and setting instructional next steps</li> <li>• Co-planning a unit</li> </ul>	<ul style="list-style-type: none"> <li>• Resident progress toward Spring Gateway goals</li> <li>• Differentiation, especially small group instruction</li> <li>• Supporting Resident unit planning</li> </ul>

Residents and Mentors should bring lesson planning materials, curricular resources, observation notes from the last week, Mentor PD materials, and any other relevant materials to facilitate the meeting.

Use the table below as a guide for each week's meeting.

# of Minutes	Content	Goal
5	<p>Check-In</p> <p>High and Low of the week, dance party, etc.</p>	Check in ☺
10	Parking Lot Items	Catch up on anything that came up in the past week
5	<p>Coursework</p> <p>What's coming up in coursework? What does the Resident need space to try out in the classroom?</p>	Increase coherency between coursework and field experience
10	<p>Resident Goals</p> <p>Reflect on Resident performance relative to goals, discuss focus for following week and action steps</p>	Reflect and discuss actionable feedback
10	<p>Gradual Release</p> <p>Review schedule for following week</p> <p>Determine resources needed and deadlines for lesson plan submission</p>	Ensure Resident is successfully maintaining classroom responsibilities and meeting program requirements
20	<p>Mentor/Resident-Specific Topics</p> <p>Questions, challenges, or concerns to address. This could be a focus on specific student(s) progress, unit planning, support in lesson planning, feedback on lesson plans, review of video, etc.</p>	Ensure Sacred Meeting Time is meeting Resident and Mentor needs across the year

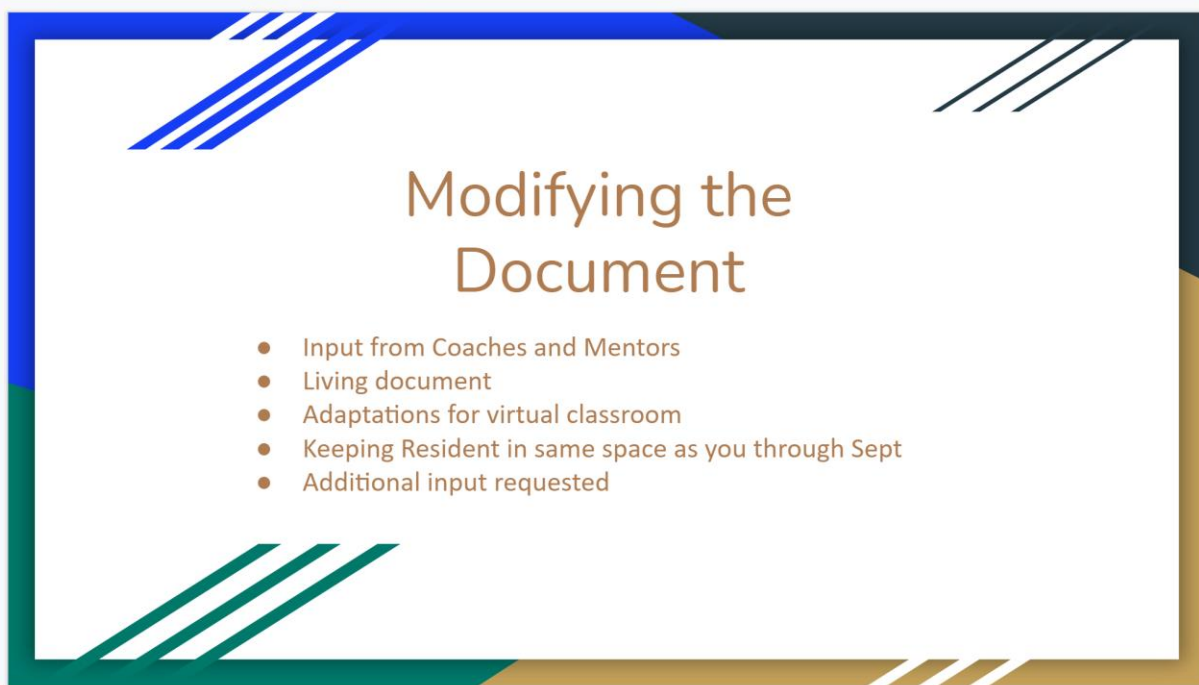
10	<p style="text-align: center;"><b>Mentor PD Review</b></p> <p style="text-align: center;">After a Mentor PD session, Mentor shares important content with Resident and discusses plan for implementing next steps</p>	<p style="text-align: center;">Ensure Resident and Mentor implement practices from Mentor PD</p>
5	<p style="text-align: center;"><b>Set Next Steps</b></p>	<p style="text-align: center;">Ensure items discussed are followed up on at the next meeting</p>

### **Other ideas for Sacred Meeting Time if needed**

- Resident comes to the meeting prepared, having written or revised preliminary lesson plans for the mentor to review
- Observing another teacher at the school together/watching video of another teacher and discussing your observations
- Reviewing video of either the Resident or the Mentor teaching and reflecting on it
- Constructing an inquiry together to test out a new strategy in the classroom
- Collaborating with other colleagues
- Discussing interventions or supports for specific students
- Contacting parents or guardians together

## Appendix B:

## Launch to Fall Professional Development Slide



## Modifying the Document

- Input from Coaches and Mentors
- Living document
- Adaptations for virtual classroom
- Keeping Resident in same space as you through Sept
- Additional input requested

Appendix C:  
Teacher Time Out Primer

**A Primer for “Teacher Time Out”:  
Supporting Instructional Decision-Making in the Moment**

Teacher Time Out as a Tool

Teacher Time Out can be a useful tool for helping beginning teachers learn to make in-the-moment decisions about how to respond to students’ ideas. In a Teacher Time Out, a mentor or a novice can pause instruction to puzzle aloud over what they are hearing from students and what they might try next.

Many teaching moves can be learned with repeated practice (e.g., giving a quiet signal and waiting for students to respond, asking a question to deepen student thinking or revoicing what a student has said). But Teacher Time Out can be useful for helping beginners decide *which move in their repertoire* to use in a given moment in order to advance student’s ideas. It can provide an opportunity for a mentor and a novice to work on responsive decision-making around important elements of teaching practice such as eliciting student thinking, representing students’ ideas, and making sense of content ideas.

Either the person leading instruction or the person observing can initiate a time out. Teachers often find it helpful to signal their desire for a Time Out by making a “T” with their hands so that

their colleague knows they want a moment to process. The person initiating a Teacher Time Out might:

- ask a question about what to do next
- want help understanding a student's idea
- have a question to insert into the lesson
- suggest who might get called on

A Teacher Time Out can give a mentor and a novice a chance to slow down momentarily to think through what is happening together. And Teacher Time Out is best used as a moment to share genuinely puzzling or interesting moments in teaching rather than to correct one another.

### TTO and Beginning Teachers

Learning to respond to students' ideas is partly contingent on paying careful attention to what students are saying and doing. But we know that beginners are often doing so much work to attend to the logistics of a lesson that they are unable to attend meaningfully to student contributions. So for example, in the context of read alouds, beginners often pay so much attention to the 'script' they have written for themselves in their plan, that they don't hear the partial understandings, misunderstandings, or brilliant ideas that students are sharing in response to their questions.

We have found that experienced teachers can learn to use Teacher Time Outs with one another very readily. We find that they move almost immediately from feelings of anxiety over talking during a lesson to excitement over the opportunity to collaborate in-the-moment with a colleague.

But with novices we need to think a bit differently. Early on, most novices will not be able to make major changes in the course of a lesson once it is underway and the newness of the teaching role can make them vulnerable to feeling corrected or criticized rather than supported in a Teacher Time Out. But mentors notice that if *they initiate Teacher Time Outs themselves during their own teaching* from early in the school year, it normalizes talking during instruction. By pausing here and there to share thoughts with the novice, to ask what a novice is hearing from students, to ask for their reactions to what is being shown on the board and so forth, mentors are not only making their expert thinking and wondering visible, but they are giving the novice permission to puzzle aloud during their teaching as well.

As expert teachers know, even after years of teaching, a day with students is filled with dozens of puzzling moments. Supporting novices to grow is about helping them to develop a spirit of inquiry, curiosity and collaboration around the hard work of teaching.

## Appendix D: Charting

**Mentoring Strategy: Charting**

Charting is one way in teacher education in which mentors and coaches can provide concrete, quantitative feedback on a novice's practice. It gives the teacher educator and the novice a chance to isolate a particular practice or "behavior" and simply watch for and tally its presence or absence. Charting can focus on teacher behavior (creating opportunities for children to participate during group instruction, questioning towards goals, building on children's ideas, orienting children to one another) or child behavior (participation, hand-raising, off-task behavior). It provides a way for teachers to share explicit information on a novice's current instruction while addressing ways he or she can improve.

<b>Step</b>	<b>Explanation</b>	<b>Example(s)</b>
<b>1.</b>  <b>Determine target behavior</b>	Determine the specific behavior with the novice.  This should be specific to the content area, particular group of students, and area of focus for the Resident.  What behavior are you looking for? Is this a teacher behavior or a student behavior?	"During read alouds, the conversation has been going back and forth between you and individual students. Let's see if you can get the kids talking to one another. Today, I will watch for times that you orient the kids to each other's ideas by saying things like, 'Who can restate what Chantelle said?' or 'Who agrees with Chantelle? Why?' or 'Who has a different idea?' or 'Whose partner has an interesting idea?'"

<p><b>2. Collect Data</b></p>	<p>Step back, and collect data on the specific target behavior.</p> <p>This does not need to be for the duration of the entire activity, just long enough to be representative of the behavior.</p>	<p>Cooperating teacher observes the novice during lesson, and tallies the number of times that candidate orients students to one another's ideas.</p>
<p><b>3. Debrief with Novice</b></p>	<p>Take a few minutes to review the data with the novice. •</p> <p>Share the data</p> <ul style="list-style-type: none"> <li>• Ask the novice what they notice about this data and give them a chance to quickly analyze and reflect.</li> <li>• Provide feedback on what to work on next.</li> </ul>	<p>As the class is transitioning to recess, the student teacher and cooperating teacher quickly "huddle" to discuss the data. The teacher asks, "What do you notice here?" and the novice correctly notes that she oriented students to one another's ideas 4 times during the lesson and when she did so, student-to-student talk increased.</p>

Adapted from Special Education Mentorship Design Lab Fall 2015 CTR Mentor Professional

Development: 09/29/16

## Charting Protocol

<b>Step</b>	<b>Explanation</b>	<b>Plan for Charting Session</b>
<b>1. Determine target behavior</b>	<p>Determine the specific behavior with the novice.</p> <p>This should be specific to the content area, particular group of students, and area of focus for the Resident.</p> <p>What behavior are you looking for? Is this a teacher behavior or a student behavior?</p>	
<b>2. Collect Data</b>	<p>Step back, and collect data on the specific target behavior. This does not need to be for the duration of the entire activity, just long enough to be representative of the behavior.</p>	
<b>3. Debrief with Novice</b>	<p>Take a few minutes to review the data with the novice.</p> <ul style="list-style-type: none"> <li>● Share the data</li> <li>● Ask the novice what they notice about this data and give them a chance to quickly analyze and</li> </ul>	

	<p>reflect.</p> <ul style="list-style-type: none"><li>● Provide feedback on what to work on next.</li></ul>	
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